DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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NOURSE, EATON & TOLMAN, PROPRIETORS. OFFICE....34 MERCHANTS' ROW. SIMON BROWN, EDITOR. FRED'K HOLBROOK, HENRY F. FRENCH, } ASSOCIATE EDITORS.

CALENDAR FOR FEBRUARY.

The "common people" have become uncommon;
A few remain, just here and there, the rest
Are polished and refined; child, man and woman,
All imitate the manners of the best;
Picking up, sometimes, good things from their betters,
As they have done from them. Then they have books;
As 'twas designed they should, when taught their letters,
And nature's self befriends their very looks;
And all this must, and all this ought to be—
The only use of eyes, I know of, is—to see.

FEBRUARY is not the month of roses, but roses would be rare in June were it not for the healthful influences of February. Though the winds howl, and snow and sleet pelt the traveller and weary the beast, or keep us at home, this month can no better be spared than balmy June or fervid July.—Covered with its warm wrapper of snow, the earth is reposing like the sleeping giant, gathering vigor for future harvests. The trees are leafless and thin, allowing the winds to pass through their branches unimpeded in their progress, while their roots lie inactive in the soil, or stimulated by an early thaw and the life-giving sun, as by an electric touch, pass into temporary activity to become dormant again when Borean winds sweep over the fields and clouded skies shut out the invigorating solar rays.

Sometimes February is the severest of the winter months, and it usually has a period of the most intense cold of the season. We may not feel its power so keenly as when winter first asserts its sway, because we have become more inured to it, and our winter arrangements are more complete. When this period has been properly provided for, it may be as comfortable as that of any other season, and crowded with contentment and substantial progress.

No profession in life, it seems to us, affords better opportunities for social intercourse, for friendly visits and observation of each others' modes of agricultural labor, than that of the farmer—no one is more favorable to study and to an investigation of the laws which affect or control the materials with which he has to deal.

In the learned professions, as they are called, where it is necessary that the mind be active during the day, the evening hours must be devoted to rest or recreation, or the mind soon loses its balance and falls into decay. In the mechanical arts, men are accustomed to labor a part or all the evening, and thus little time is left to them at any season of the year for uninterrupted study. It is not so with the farmer. If he plans his affairs judiciously, and exercises sound wisdom with regard to his personal labor—neither being slothful in business nor exacting too much from his physical powers—he will find himself sufficiently fresh to devote the long evenings in February with a keen relish for literary pursuits. Steadily occupying those evenings through a single winter, with well-directed effort and a subject before him that shall arouse and call forth all the energies of his mind, the young farmer will be surprised at the progress he has made, untrammelled by the arbitrary rules of others.

Let us, for a moment, look at the farmer as one of a class. He has a farm, and holds its title deeds, and there is no earthly power to wrest it from him without his consent. He knows that the earth will generously return to him an ample reward for his labor, and that with common in-

dustry and prudence, himself and those dependent upon him will be fed from the bountiful soil, and therefore no gaunt spectres of want ever disturb his dreams. He has a house, which is his castle; it looks out upon sunny slopes, or aged elms, or purling water-brooks, or broad fields of grass, or waving grain or corn, or, perchance, upon forest, hill or mountain, or a wide winter-scene of frost-work and snow. It has a tight roof, and under it nestle those whom his heart holds as most dear. Thrice each day his table is spread and covered with the garnered bounties of his fruitful soil, the reward of well-directed labor. It is the product of all whose years were not too tender for toil, and is enjoyed as the direct gift of heaven, and assured in the promise of old,—"Ask and ye shall receive."

Around this social board all are animated by one purpose—the happiness of each other. One heart, one mind, one voice, one effort of hand and will, carry forward the pursuits of the family, and secure the desired results of all. His domain is skirted by the church and the school-house, where the intellect is expanded and stored with useful knowledge and the affections ripened for heaven. In the village, enough of the arts and sciences flourish to satisfy the wants of his occupation, and it forms the centre of the little republic whose members meet there in the farmer's club, lyceum, and on town-meeting days. His wants are few, compared with many others, and he creates the means of supplying most of them within himself. He is both producer and consumer, keeping his own stall and filling the hooks and shelves of others. If a ride to town or a journey is contemplated, he has the means to indulge the desire, as a horse and carriage are common to every farmer. What other profession can boast as much?

Such are a few outlines of the *home of the farmer*. Sheltered, clothed, fed, with a sufficient assurance of all these being continued to him, so that no gloomy anticipations of privation and want shall assail him and make him anxious for the future, the revolutions of nations or States rarely affect his prosperity, or, if at all, only to create a demand for his surplus products and increase their value.

We wish to call the attention of the reader to the idea contained in the quotation in the first line of our article,—

"The common people have become uncommon."

Those who have been observing persons will find in this remark a great truth. The publication of agricultural newspapers and books, the introduction of new and improved implements, and the discussions that have taken place in the *home of the farmer* and in his neighborhood, have, in reality made the common people uncommon. That is, they are not now the common people they were forty years ago. They have progressed with other things, in all the arts, in general intelligence.

* * * "They have books;
As 'twas designed they should when taught their letters."

They are more polished and refined, converse better, think better. Their dwellings, shops, farms, almost everything, show a higher culture and civilization, and what is especially gratifying, there is, in all classes, a more just appreciation of the occupation of the farmer, and of his position in society.

Let us, then, be industrious, frugal and happy in *February*, and when *March* comes, we will endeavor to extract as many pleasures as we can out of that, first of the Spring months.

SALT.

Some modern agricultural writers have doubted the necessity of giving animals salt. The following remarks as to the effect of salt upon health, by Prof. James F. Johnston, of Scotland, may be relished by those who still put salt in their own puddings, and allow their cattle a little now and then:

"The wild buffalo frequents the salt-licks of North-western America; the wild animals in the central parts of Southern Africa are a sure prey to the hunter, who conceals himself behind a salt spring; and our domestic cattle run peacefully to the hand that offers them a taste of this delicious luxury. From time immemorial it has been known that without salt man would miserably perish; and among horrible punishments, entailing certain death, that of feeding culprits on saltless food is said to have prevailed in barbarous times. Maggots and corruption are spoken of by ancient writers as the distressing symptoms which saltless food engenders; but no ancient, or unchemical modern, could explain how such sufferings arose. Now we know why the animal craves salt; why it suffers discomfort, and why it ultimately falls into disease if salt is for a time withheld. Upwards of half the saline matter of the blood (57 per cent,)consists of common salt; and as this is partly discharged every day through the skin and the kidneys, the necessity of continued supplies of it to the healthy body becomes sufficiently obvious. The bile also contains soda as a special and indispensable constituent, and so do all the cartilages of the body. Stint the supply of salt, therefore, and neither will the bile be able properly to assist the digestion, nor the cartilages to be built up again as fast as they naturally waste."

CENTRAL HEAT OF THE EARTH.—The rate of increase of heat is equal to one degree of Fahrenheit for every forty-five feet of descent. Looking to the result of such a rate of increase, it is seen that at seven thousand two hundred and ninety feet from the surface the heat will reach two hundred and twelve degrees, the boiling point of water. At twenty-five thousand five hundred feet

it will melt lead; at twenty-one miles melt gold; at seventy-four miles cast iron; at ninety-seven miles soft iron; and at one hundred miles from the surface all will be fluid as water, a mass of seething and boiling rock in a perpetually molten state, doomed possibly never to be cooled or crystallized. The heat will exceed any with which man is acquainted; it will exceed the heat of the electric spark, or the effect of a continued voltaic current. The heat which melts platina as if it were wax, is as ice to it. Could we visually observe its effects, our intellect would afford no means of measuring its intensity. Here is the region of perpetual fire, the source of earthquake and volcanic power.—*Recreative Science.*

CHEAP CISTERNS AND CHEAP FILTERS.

Instead of incurring the great expense of excavating wells, stoning them and supplying expensive pumps for obtaining water for the ordinary purposes of a farm-house or barn, a much cheaper and more satisfactory arrangement will be found in the use of my cheap mode of constructing cisterns and filtering the water. A cistern of the dimensions that I shall describe will hold one thousand gallons, will cost but eight dollars, and its capacity may be doubled for less than fifty per cent. additional cost. One of the size above named will be found sufficient for farmers' families generally, and will insure soft water, which is rare in wells.

Directions for Excavating Cisterns.—Stake and line out a plat near the building 8 x 18 feet; excavate this one foot in depth; then set the lines in 18 inches on all sides; then excavate all within the lines, or 5 x 15 feet, to the depth of 4 feet in the middle, making the middle level some 9 inches in width, sloping the banks on all the sides and ends to the lines last placed, which will make a section of the pit either way V shaped. except that 9 inches of the bottom will be level,

In digging the banks use care not to disturb the soil not thrown out. When the digging is completed, plaster the bottom, the level part with a good coat of cement mortar, and place a board on it to stand on to do the balance of the work, cutting the board in two equal parts before laying it on the mortar. This done, plaster the entire surface on the ground to the lines last named, then remove one-half of the board and stand on the balance and build a 4 inch brick wall across the pit, about in the middle, laying the bricks, which should be *soft*, (common salmon brick,) in cement, but plastering neither side.

Lay the wall to the line, then remove the balance of the board and put a coat of mortar where it lay. The cistern is now complete, save the covering; this may be done by laying plank over the whole bedding, then on the surface of the first excavation in mortar, or splitting logs from the woods and laying them flat side down, and closing the joints with mortar. The pump pipe should be laid into one end and the leader pipe from the house gutter laid into the other before it is covered. This done, return earth enough to cover the surface at least one foot deeper in the middle than the surrounding ground; level it off neatly and sward it, and you have a complete filtering cistern for eight to twelve years.—*American Farmer.*

WISDOM FOR WINTER.

Never go to bed with cold or damp feet.

In going into colder air, keep the mouth resolutely closed, that by compelling the air to pass circuitously through the nose and head, it may become warmed before it reaches the lungs, and thus prevent those shocks and sudden chills which frequently end in pleurisy, pneumonia, and other serious forms of disease.

Never stand still a moment out of doors, especially at street corners after having walked even a short distance.

Never ride near the open window of a vehicle for a single half minute, especially if it has been preceded by a walk; valuable lives have thus been lost, or good health permanently destroyed.

Never wear India-rubber boots in cold, dry weather.

Those who are easily chilled on going out of doors should have some cotton-batting attached to the vest or outer garment, so as to protect the space between the shoulder-blades behind, the lungs being attached to the body at that point; a little there is worth five times the amount over the chest in front.

Never begin a journey until breakfast is eaten.

After speaking, singing, or preaching, in a warm room in winter, do not leave it for at least ten minutes, and even then close the mouth, put on the gloves, wrap up the neck, and put on a cloak or overcoat before passing out of the door; the neglect of these has laid many a good and useful man in a premature grave.

Never speak under a hoarseness, especially if it requires an effort, or gives a hurting or painful feeling, for it often results in a permanent loss of voice, or a long life of invalidism.—*Hall's Journal of Health.*

SHELTERED FARMS.—On former occasions we have discussed at some length the importance of growing timber as protection to farm crops, and its effects upon climate. A case in point is given by a correspondent in one of our exchange papers. He speaks of a piece of five acres of wheat in Delaware which grew alongside of a grove of timber; it made a good crop; there were seventy acres exposed to the full blast of the winter's wind, and the consequence was it was hardly worth cutting. He also speaks of the effects of the protection of woods to orchards in Michigan. He says:

"Our orchards here did well when the country was new and the clearings were small. But as our forests recede from the orchards, the bark on the west side of many a fine tree is killed by the piercing west wind. Some of our neighbors have very considerately preserved belts of timber, and clusters of shell-bark, black walnut and butternut; while others, like Time, have cut down all, and are now reaping the fruits of their folly instead of their orchards."—*Valley Farmer.*

BLACKBERRIES AND RASPBERRIES.—During the last five years, the editor of the Connecticut *Homestead* has tried the Lawton, Dorchester and Newman's thornless blackberries, and the Hudson River red raspberry, and now says, "anybody is welcome to our plants who will be at the trouble to take them up."

THE BIRDS OF NEW ENGLAND---No. 8.

OWLS.

Great Horned Owl—Arctic Horned Owl—The Little Screech Owl, or Mottled Owl.

The GREAT HORNED OWL (*Bubo Virginianus*, Cuv.,) has been aptly styled an "Eagle of the night, the king of the nocturnal tribes of American birds," and its aspect and dismal tones are said to have struck terror into the breasts of our early colonists. "This noted and formidable Owl," according to Wilson, "is found in almost every quarter of the United States. His favorite residence, however, is in the dark solitudes of deep swamps covered with a growth of gigantic timber; and here, as soon as evening draws on, and mankind retire to rest, he sends forth such sounds as seem scarcely to belong to this world, startling the solitary pilgrim as he slumbers by his forest fire,

'Making night hideous.'

Along the mountainous shores of the Ohio, and amidst the deep forests of Indiana, alone, and reposing in the woods, this ghostly watchman has frequently warned me of the approach of morning, and amused me with his singular exclamations, sometimes sweeping down and around my fire, uttering a loud and sudden *Waugh O! Waugh O!* sufficient to have alarmed a whole garrison. He has other nocturnal solos, no less melodious, one of which very strikingly resembles the half-suppressed screams of a person suffocating, or throttled, and cannot fail of being exceedingly entertaining to a lonely, benighted traveller, in the midst of an Indian wilderness!"

In general, there is something in the character of the Owl so solitary and mysterious, something so discordant in his voice, heard only amid the silence and gloom of the night, and in the most lonely and sequestered situations, that peculiarly affects the mind of man, and with the ignorant, often gives rise to superstitious fears, an instance of which is recorded by Dr. Richardson.

"A party of Scottish Highlanders in the service of the Hudson's Bay Company, happened, in a winter's journey, to encamp after nightfall in a dense clump of trees, whose dark and lofty stems, the growth of more than one century, gave a solemnity to the scene that strongly tended to excite the superstitious feelings of the Highlanders. The effect was heightened by the discovery of a tomb, which, with a natural taste displayed by the Indians, had been placed in this secluded spot. Our travellers having finished their supper, were trimming their fire preparatory to retiring to rest, when the slow and dismal notes of the Horned Owl fell on the ear with a startling nearness. None of them being acquainted with the sound, they at once concluded that so unearthly a voice must be the moaning of the spirit of the departed, whose repose they supposed they had disturbed, by inadvertently making a fire of some of the wood of which the tomb had been constructed. They passed a tedious night of fear, and with the first dawn of day, hastily quitted the ill-omened spot."

Audubon observes that the Great-Horned Owl pairs early in February, and that during its courtships the evolutions of the male in the air, and his bowings and snappings of his bill when near the female, are extremely ludicrous to a human observer. The nest is a bulky structure, some three feet in diameter, placed on a large horizontal branch not far from the stem of the tree, and is composed of large crooked sticks, and lined with coarse grass. The eggs, three to six in number, are nearly round, and of a dull white color.

"This species," observes this distinguished ornithologist, "is very powerful and equally spirited. He attacks wild Turkeys when half grown, and often masters them. Mallards, Guinea-Fowls, and common barn-fowls prove an easy prey, and on seizing them it carries them off in its talons from the farm-yards to the interior of the woods. When wounded it exhibits revengeful tenacity of spirit, scarcely surpassed by any of the noblest of the Eagle tribe, disdaining to scramble away like the Barred Owl, but facing its enemy with undaunted courage, protruding its powerful talons, and snapping his bill as long as he continues in its presence. On these occasions its large goggle eyes are seen to close and open in quick succession, and the feathers of its body being raised, swell out its apparent bulk to nearly double the natural size."

The Crows delight in teasing this Owl whenever they discover it in the daytime, and it is quite amusing to observe these sable orators congregated from the neighboring woods around a thick, dark evergreen, which the Owl has selected as his retreat for the day, and perched as near the object of their insults as their regard for personal safety will permit, uttering low, varied, sarcastic gutturals, accompanied with derisive gestures, protruding their clamorous throats into the face of the Owl, one after another, or several at a time joining in the derision, and angry rehearsal of grievances; or the whole pack at once seem determined to distract the poor Owl with their deafening, discordant cries, belched into the very ears of their victim. At times one might suppose they were twitting this nightly marauder of his foul misdeeds, or deriding him for his gravity and purblindness in the daytime. When in a more exposed situation, the Crows will repeatedly sweep down upon him from above, one after another, barely missing the Owl in their swift descent, the Owl, meantime, lowering his prominent horns as they pass over him, and in ludicrous ways attempting to dodge the blows so boldly threatened by the Crows, but which they dare not inflict. But at these times I have found this Owl difficult to approach, especially if the day be cloudy, although the Crows, appearing to divine my intentions, would allow me to pass under the trees on which they were sitting, though at other times it is almost impossible to approach within a hundred yards of them.

A bird of this species, slightly wounded, I once kept in confinement to observe its manners. He never at any time exhibited the least fear, but always courageously resisted all attempts to handle him, and when merely approached in his room, would hiss, snap his bill powerfully, and erecting his feathers, truly presented a formidable appearance, and manifested his readiness for a combat. Though carried several miles on a bright sunny day, it seemed to suffer none from the light; a hen, a dog, or a cat, even at considerable distance, at once attracted his attention, and he manifested an uneasiness to attack it, following it with his eyes until it was out of sight. When

surrounded by a crowd of interested spectators, it was the same fearless bird, ready for a grapple with anything that ventured to tease it, but otherwise appeared at ease. The food of this bird is quite various, consisting chiefly, doubtless, of the smaller quadrupeds and large birds, and it is known to be quite destructive to partridges in winter. An esteemed ornithological friend informs me that he once shot one so perfumed with the odor of a *Skunk*, that he was obliged to leave it where it fell, it doubtless having killed one of these animals the preceding night. I once knew one to attack, in midday, the sun shining clearly at the time, a brood of young Red-tailed Hawks, that I had brought down from their nest and left an hour, having eaten one entirely, and killed, plucked clean, and eaten off the head of the second, when I started him from his repast on my return; which shows that the sight of this Owl is less defective in the light of the sun than that of many others. The dismal hootings of this species are well known, his deep bass *hoo-hoo, hoo-oo* being sometimes heard in the daytime on the approach of a storm. Its proper time of activity, however, is in the night, when it seeks its prey by silently gliding along near the earth, but with great velocity, and pounces upon its prey beneath with extreme suddenness. At other times it sails in broad circles like the Eagle, with the greatest degree of rapidity, ease and gracefulness.

The Great-Horned Owl is also known as the *Virginian Eagle Owl*, but its more common appellation is that of *Cat Owl*. The length of the female is full two feet, breadth of wing four feet six inches; the male is somewhat less, but otherwise than in size, the sexes differ but little in external characters. Upper parts finely pencilled with dusky, on a tawny and whitish ground; lower parts, tawny and dusky, elegantly barred transversely with dusky bars, and touches of white; horns, three inches long, consisting of twelve or fourteen broad feathers, black edged with bright tawny.

The Arctic Horned Owl (*Bubo Arctica*, Rich. and Swain.,) is a northern species, first accurately described by Richardson and Swainson in their *Northern Zoology*, but as yet little seems to be known concerning it. It is believed to have been seen as far south as Massachusetts, a large white owl with horns having been observed here in the depth of winter. It is described as resembling the Great Horned Owl in size, but is said to be much handsomer, and to specifically differ from this bird otherwise than in color, though some ornithologists have hinted it may prove merely a semi-albino variety of *Bubo Virginiana*. Upper parts finely barred with umber brown and white; lower plumage white with bars of dusky.

The Mottled Owl, or the Little Screech Owl, (*Scopsasio*, Bonap.,) is a well known species in New England, is found over most parts of the United States, and extends its migrations considerably to the northward. Its notes are exceedingly melancholy, being a peculiar quavering kind of wailing, often heard during the evenings and moonlight nights of the autumn months, as well as occasionally at other seasons. It is a harmless and interesting species, feeding chiefly upon mice and small birds, and in winter sometimes enters barns in search of its prey, or to seek refuge from the weather. Its favorite places of repose are hollow trees, in which it breeds, and dark evergreens. In the daytime it is considerably blinded by the light of the sun, and when discovered by small birds, particularly the Blue Jay, is sorely teased, and furnishes rare sport for the marauding Jay, who may frequently be seen peeping carefully into the hollow trees of the orchard in search of them, at the same time screaming with great vehemence. In its proper season of activity it is a spirited little Owl, and in confinement is found quite amusing, often putting on grotesque airs and snapping its bill when approached, and in the evening exhibits considerable sprightliness, moving about the room with the stillness of thought.

The length of the Mottled Owl is about ten inches; alar extent, twenty-two inches; upper plumage, dark brown, streaked with black, pale brown and ash; lower plumage white, and finely marked with irregular streaks of black and touches of brown; egrets, or horns, prominent, of ten feathers. The young birds are quite different in color from the adult, being of a tawny red above, and bright reddish brown below, marked with touches of black and white, and are commonly known as the *Red Owl*. Wilson describes the Red and Mottled Owl as two distinct species, and now that they are known to be one, there is a diversity of opinion as to which are the adult birds.

J. A. A.

For the New England Farmer.

TUBEROUS ROOTS.

ON THE MOST IMPORTANT TUBEROUS ROOTS USED BY DIFFERENT PEOPLE FOR FOOD.

BY WILSON FLAGG.

[CONTINUED.]

The Yam (*Dioscorea alata*) has lately been introduced into this country, and cultivated with considerable success. It is a very nutritious root, and often attains an enormous size. The kind which we cultivate is the Chinese yam, (*D. sutiva*), which does not require so hot a climate as the other species. In its native countries, it is made into sago, though the true sago is the product of a species of Palm. This nutritious root is grown in Java, Manila, Sumatra, China, and in all parts of the torrid zone. In a hot and damp climate, it often weighs as much as 30 or 40 pounds. Indeed, in Cochin China, they have been known to attain the extraordinary size of 9½ feet in circumference, and to weigh over 400 pounds. This large kind, however, has a fibrous root, and is used chiefly for the manufacture of starch and sago. The yam is not valued so highly by the inhabitants of its native regions, as

The Arum or Aron, which belongs to a different botanical family, and is considered in the countries in which it is grown as superior in flavor and delicacy to any other known root. The roots of several species of Arum are cultivated with extraordinary care in the hottest parts of the torrid zone, and they are even a still more general article of food than potatoes or bread with us. The Arum is grown in the most distant countries of both continents; Europe does not possess a climate sufficiently warm to produce these esculent roots, which require excessive heat combined with moisture.

All the roots of the Arum have an acid, some-

what poisonous principle, like those of our native plants of this family, as the Arum triphyllum or Dragon Flower, which it is well known is excessively acid. This poisonous principle is so slightly connected with the nutritive ingredients, that it is lost in the drying, or by roasting and baking, and the root is then perfectly harmless. The culture of the Arum takes place in the same climates as those in which the banana, the sugar cane and the cocoa nut is grown.

In the Sandwich Islands, the Arum is called Taro, and the fields in which it is planted, Taro fields. These are generally quadrangular pieces of ground, about forty-five or fifty feet square. They are dug out, two or three feet deep, and so situated that a running stream can be turned into them. These hollows generally lie like terraces, one above another, so that the water can be carried from the higher to the lower ones. These hollows are so deep that the leaves of the plants project but little above their level; the plants are set rather wider than the potato with us, about the distance of cabbages, as we plant them.

The tuber of the Taro plants attains the size of a child's head, and when boiled or baked, it has great resemblance to the sweet potato, but more delicate in flavor, and more nutritious. It is commonly eaten like bread, with or without salt, after being cooked. The tubers are sometimes cut in slices and fried in lard. The most common mode of preparing it is to mash it, after boiling, into a frumerity which, after a little water is added, is allowed to ferment. This is the practice of the Sandwich Islanders, who feed themselves, therefore, as we feed our hogs with a fermented mixture. This mash is called Poe, and the inhabitants are said to eat incredible quantities of it.

The MANIOC.—This is another of the important roots which is indigenous in the New Continent. The root of the Manioc is one of the principal articles of food in the tropical parts of America. It grows in the same climate that produces the banana, but seems to require more heat. Two varieties of the Manioc plant are cultivated, one of which is called the sweet, the other the bitter manioc. The root of the former is perfectly harmless, while that of the other variety is a violent poison, until the poisonous juice is entirely pressed out of the substance.

From the plant of the Manioc is made the Cassava bread, of which we have heard so much. It is generally prepared in the shape of discs—18 or 20 inches in diameter, and somewhat thin in substance. One pound of this bread is said to be sufficient for the daily food of a native—but it would probably swell, when moistened, to two or three pounds. The substance in common use among us, called Tapioca, is prepared from the Manioc, and forms a very extensive article of commerce.

The plant is propagated by shoots, and is slow of growth according to the heat of the climate. In Brazil, it ripens in six or eight months, in Mexico, nine months usually elapse before the crop can be gathered; there are also varieties which require a year or more for their perfection. Too much cannot be said in praise of this excellent root, but it requires so much time for its maturity, that a people must be civilized and agricultural in their habits, to be able to depend on it as one of their principal resources.

We have thus named and described all the principal tuberous roots which form a predominant article of food with different nations. Such roots as the turnip, the beet, the parsnip and carrot, though highly important agricultural products, form but a small part of the food of any portion of the human race.

Cambridge, Mass., 1860.

STATE BOARD OF AGRICULTURE.

The *Massachusetts State Board of Agriculture* held its annual meeting at its rooms in the State House, on Tuesday last, December 11, 1860. Nearly all the members of the Board were present, and an earnest spirit was manifested by all in the subjects that came under consideration. It being desirable that the several committees should have an opportunity of closing their reports when their whole number was together, the presentation of them was postponed until the following morning.

Dr. J. BARTLETT, from the Middlesex North Society, stated that the law relating to setting fires in woods ought to be so modified as to protect farmers from the great destruction occasioned by them, and moved that a committee be appointed to inquire into the statistics of losses, and instructed to lay the matter before the Legislature at its next session, and ask such legal provisions as shall either protect or indemnify losers in the matter. The committee was raised, consisting of Messrs. BARTLETT, of Chelmsford, DAVIS, of Plymouth, LORING, of Salem, SMITH, of Middlefield, and LATHROP, of South Hadley.

Mr. BUSHNELL, of Sheffield, called attention to the law requiring competitors for the premiums on grain crops, &c., to weigh and measure all the crop. He thought it a great hardship, and it certainly bore heavily upon the societies in Berkshire county. He inquired whether the law was drawn with the sanction of the Board? Mr. DAVIS, of Plymouth, explained the circumstances under which the law was passed, and its importance in securing reliable results.

Mr. GRENNELL, of Greenfield, thought the law a good one, and that it ought not to be repealed. Dr. LORING, of Salem, expressed an opposite opinion and said that the law could not be complied with, without subjecting the competitor to unnecessary labor and inconvenience. The subject was finally referred to Messrs. LORING, BUSHNELL and DAVIS, to consider it and report at a future day.

On the second day, the Board received and discussed the reports of the delegates to the several county shows which were held in the Commonwealth during the last autumn.

Mr. SEWALL, of Medfield, from the Committee appointed to co-operate with the Commissioners

in relation to the cattle disease, reported, that "the Committee, having had large opportunity to observe the course pursued by the Commissioners, take pleasure in expressing the conviction, that, to the late action of the Legislature, enlarging the powers of the Commissioners and the means at their disposal, followed by their own wise and energetic prosecution of a work attended with much difficulty and pain, is to be ascribed the probable extermination of an evil of the most threatening aspect to the interests of agriculture, and the common welfare of the country.

The committee who had the subject in charge, reported,—

That, after due consideration of the subject, they unanimously decided that the projected publication of an *Agricultural Manual* by a Committee of the Board is inexpedient at the present time.

Mr. SEWALL, of Medfield, introduced the subject of the flowage of low lands, and suggested that the Board should take some action to arouse public sentiment, and try a remedy for the great evil.

Mr. BROWN, of Concord, debated the matter at considerable length, showing the nature and the great extent of the damage done, and, generally, without the slightest compensation. He cited particular cases of hardship, the wide-spread destruction of property, and the influences which half-submerged meadows have upon the health of those residing in the neighborhood. He thought it was eminently the province of the Board to investigate the matter, and publish a decided opinion upon it, urging that the manufacturer has legal privileges that the farmer has never enjoyed; that no man's land should be taken without his consent to be used for private purposes, or that some tribunal should be created to adjust all cases before the land can be flowed. After presenting several other points, he offered the following resolutions:

Resolved, That in the opinion of this Board, the agricultural interests of the Commonwealth are greatly injured by the inundation of large tracts of its best lands, and the rights of a portion of our citizens, for whose prosperity we have a special regard, are invaded and their property constantly depreciated.

Resolved, That in the opinion of this Board, the law —General Statutes, Chapter 149—"that any person may erect and maintain a dam on a stream not navigable, if not to the injury of a prior mill," *without consent of the owner of the land*, operates greatly to retard the progress of agriculture in the State, and destroys the property of a class of our upright and industrious citizens, and ought to be modified and repealed.

Resolved, That a committee of three persons be appointed by the chair to present these opinions of the Board to the next Legislature, and ask that the law be so modified as to prevent any person or persons from flowing the land of another, without first obtaining the written consent of the owner.

Mr. FREEMAN WALKER, of North Brookfield, thought the Board should be careful in its action on this important subject. Dr. LORING, of Salem, said the resolutions had his entire sympathy, and he had no doubt they had of the whole Board. The resolutions were referred to a select committee consisting of Messrs. DAVIS, GRENNELL and SEWALL, Mr. BROWN declining to act upon it, but would cheerfully labor with them in the cause.

In the afternoon, Mr. GRENNELL read a report upon *Sheep Husbandry*, which, with the discussions upon it, occupied most of the session. The report was minute, able, and of a practical character.

Mr. SMITH, of Middlefield, stated that there should be some legislation by which the societies could protect themselves against peddlers, &c., outside of their grounds, and a committee consisting of Messrs. SMITH, DAVIS and PETERS was appointed to consider and report on the matter.

Dr. BARTLETT submitted a continuation of his report of last year, on the *Diseases of Vegetation*. It was listened to with interest and elicited considerable discussion.

Mr. ATWATER, of Springfield, presented an elaborate report upon *Root Crops*, which was followed by a long and animated discussion, and after some changes was accepted.

Upon the whole, we think this meeting was the most spirited and profitable one the Board has ever had.

CRANBERRY CULTURE IN NEW JERSEY.—Much attention is given to the cultivation of cranberries in Burlingtnn county. About 150 acres have been planted this season; of this, one farmer named Chetwood set out 25 acres; another, named G. Gowdy, 17; and Mr. Allen is planting 10 acres. This patch yields 150 bushel per acre. Mr. Allen is selling his for $4 per bushel, delivered at the house. The whole expense per acre, for building a dam, clearing the ground of roots, and setting out the plants, is only about $100. Allen's patch has cost $25 per acre for merely setting out the plants, but this is unusual. It costs fifty or sixty cents per bushel to gather them, a process which is accomplished simply by scooping up the berries with the hands. The work is mostly done by women and children.—*Camden (N. J.) Democrat.*

RULES FOR PRUNING GRAPES.—The last number of *Hovey's Magazine* gives substantially the following general rules for grape pruning, after recommending grape growers to be free in the use of the knife, followed by the remark that where one vine is pruned too severely, nine are not pruned enough. No shoots should be nearer than one foot of each other. Prune back to within one eye of the old wood, every fall and spring, about one half of the annual shoots—the remaining eyes producing canes to be retained for bearing next year—when the old bearing wood is in turn to be cut out to make room for new shoots. Disbud or rub off, as soon as they appear, all shoots not wanted as bearing wood.

For the New England Farmer.

THE POTATO ROT ONCE MORE

MR. EDITOR:—At the close of the article in your last paper on the cause of the potato rot, you suggested the propriety of discontinuing the discussion of the question for the present, until some new light should break forth upon it. With the propriety of this suggestion I fully accord, as I have no desire to protract the discussion, without the prospect of obtaining further light. Yet it is due to *myself* and to the *negative* of the question, that I should have the privilege of closing the present discussion with a brief statement of facts, so as to leave the question on the ground of its true merits. I am willing to forego any reply to Mr. Reed's last article, in order to have an opportunity to present the merits of the question, and the discussion that has been had upon it, in its true light. to the public.

Mr. LYMAN REED, of Baltimore, Maryland, has undertaken to prove that the potato rot is caused by insects. The position he has taken throws the whole burden of proof upon his shoulders. He must prove it to be a fact, that insects cause the potato rot, or fail to do what he has undertaken. By the rules of all just controversy, I am not bound to prove the negative of the question; I may do it, if I please; but I am not bound to do it. All that can be expected of me, is candidly to admit his facts as far as they are true, boldly to rebut and disprove his assertions and inferences when they are untrue; in other words, to show that they are untrue in point of fact, or that they do not apply to the question at issue.

As yet, Mr. Reed has produced but one solitary fact to show that insects are the cause of the potato rot. He says that he and others, by the aid of the microscope, have seen insects on potatoes, performing the work of destruction. For the sake of argument, it has been admitted that Mr. Reed and others have seen, what they say they saw, insects on certain diseased potatoes. But the inference which he attempts to draw from this admitted fact, viz., that insects are the cause of the potato rot, has been denied; because it is believed, that they are not the cause, but the effect or consequent of it; in other words, that the potatoes were thoroughly diseased before the insects were seen upon them. For it seems to be a general and universal law, in the economy of Divine Providence, that all vegetable and animal matter, going to decay, whatever be the cause of the decay, should waste away, be consumed, and used up, in giving existence to myriads of insects. This law applies as well to vegetables as to animals; so that the mere fact of finding insects on rotten or diseased potatoes, is no proof of their being the cause and origin of the rot, any more than the finding of insects in the bodies of dead animals, is a proof that insects have killed those animals.

I have, therefore, solicited Mr. Reed's particular attention to the point at issue. I have asked him to prove, if he can, not only that insects are an adequate and sufficient cause of the rot, but that they are the only and original cause of the disease. This he has failed to do, at least to my satisfaction. In my last communication, lest this discussion should vent itself in a windy war of words, I invited Mr. Reed's attention to eight well-known, stubborn and opposing facts—facts which are the result of careful observation and experience, well known to all good farmers, and utterly inconsistent with the insect theory. And yet Mr. Reed has not seen fit either to admit, or to deny those facts. JOHN GOLDSBURY.

Warwick, Dec. 17, 1860.

THE SPRUCE FIR, [ABIES EXCELSA.]

Many of our common farmers have begun to embellish the grounds about their dwellings with shrubs and shade trees. They find advantages in so doing, independently of the pleasure derived from merely looking at them. They shelter the house from high winds, break the force of storms of hail, rain and snow, and temper the fierce suns of summer. Thus they save paint and fuel, and, when it is needed, afford a grateful and refreshing shade. These are, certainly, considerations. And so is the beauty which they give to the landscape, and that air of home, snugness and sheltering warmth or shade which they afford to the house in which those farmers live.

But when they look farther, and find that these trees have a direct influence upon the climate—

that they keep it warmer and more moist, and that at some future day, when the present forests may have been manufactured into bulwarks of defence, or articles of domestic industry, or used as fuel, these may have an important value for practical uses.

Among the most beautiful of the evergreens is the Spruce Fir or Norway Spruce, an accurate figure of which we give above. It is one of the loftiest trees of Europe, growing from one hundred and fifty to one hundred and eighty feet in height, with a straight trunk. It is also one of the most beautiful pyramidal trees, and one that has succeeded admirably in this country. The branches and twigs are often beautifully pendulous, when the tree has attained some size. This species is very characteristic, and therefore peculiarly valuable in adorning the landscape; it bears trimming, and makes a good shelter and barrier hedge, and withstands the severest winters. In WARDER'S "Hedges and Evergreens," a more particular account of the various species of evergreens may be found.

For the New England Farmer.

UNCERTAINTIES IN FARMING.

Who knows for a certainty the comparative value of the various root crops for making milk or flesh? No experience of my own, or information from other sources, has satisfied me on these points.

Facts, or apparent facts, in reference to these questions are so often met with conflicting with each other, that it really seems as if no systematic, well conducted experiments had ever been fully followed out to their true results. Then, again, as to their effect upon the soil on which they grow. I have known many complain of inability to produce as good crops of corn following turnips, as they did following other crops. It has also been my experience. Yet we find many contending that it is not owing to the turnips. Who knows, and will tell us where the truth lies? I know, in my own case, that I applied three times the quantity of manure for the turnip crop that I did for the potatoes along side, and treated both alike the following season, for corn, and did not get as much from the turnip piece as from the potato by ten bushels per acre, and the oats that followed the corn were very much less; in fact, when laid down to grass, a stranger would have noted the difference in favor of the piece planted with potatoes. How is this, and who will tell us?

The soil seemed packed, and plowed much harder where the turnips grew. Truth, in all matters of this kind, should be brought to light. Farmers in this country have too long been in the dark respecting these, to them, important questions. The compensation for their products is small, compared with what it is in England. True, their taxes and rents are less, but their labor is far more expensive. I fail to recall the time when New England farmers could go to Brighton market and purchase neat cattle and feed them up for beef, without losing money, unless it was done with grass and unsalable products of the farm. Even when fed in this way, the question arises whether it would not be more for their interest to have given the same provender to their cows, and increased their dairy products, as well as fitted them for better withstanding the severity of our winters. K. O.

Rochester, Dec. 18th, 1860.

WHAT CAUSES CORNS IN THE FEET OF HORSES.

The question has often been asked: "What are the causes of corns in the feet of horses?" It is not unfrequently that the exciting cause can be traced directly to the influence of improper shoeing; in fact, I may say a very large majority of cases are so caused. The first and by far the most frequent cause is contraction of the heels, which, in almost every case, is caused by our present erroneous mode of shoeing. In the first place, the smith bevels the shoe from without inwards, so that when secured to the foot it prevents the natural expansion of the hoof, as it is impossible for it to expand up these inclined planes. When the weight of the animal is thrown upon it, it will be observed that the foot rests in a concavity, which, resisting the natural expansion of the hoof, gradually forces the heels inwards; and, to save a little trouble, the smith frequently hastens the process of contraction by cutting away the bars of the foot, thus weakening the quarters very considerably. These things are altogether wrong. If the bars were preserved sound, and the shoe made with a level bearing, we should seldom find a horse troubled with corns.

Another cause is making the shoe too narrow at the heels, causing unnatural pressure and bruise on that part of the sole between the bar and crust of the foot. When thus caused they are readily removed by cutting well out, and applying some of the caustic applications, and the widening of the shoe. If caused by contraction, the cutting process and caustic applications are proper, with the additional trouble of restoring the natural elasticity of the hoof, which can best be done by poultices, and a proper hoof ointment, and applying a shoe beveled slightly outwards from the last nail hole. The shoe should be hammered, but not twisted, as is sometimes done by the smith to save a little labor; the smith generally not regarding his extra labor as paid for. Better for you to pay him two prices, and have the work done properly.

Corns are the cause, in most cases, of sprung knees. The horse, in order to relieve the heels from pressure, throws his weight mainly on the toe, thus relaxing the tendons and suspensory ligament of the leg, contraction of which naturally follows. As a proof of this assertion, examine for yourselves the feet of sprung kneed horses, and you will find a majority, if not four-fifths of them, with corns.

When the feet are not contracted, take pains to keep them so by level shoeing, and preserving the elasticity of the hoofs. By a little attention to these matters much suffering will be prevented, as well as time and money saved.—*Ohio Farmer.*

For the New England Farmer.

THE BROWN, OR KING PHILIP CORN.

In the *New England Farmer* of the 15th December, Mr. Stearns suggests some experience and inquiries in regard to the Brown or King Philip corn, which has been a subject of much praise in the Patent Office Reports and other publications. This wide spread praise of the merits of this corn is not in accordance with my experience and observation. Many years ago, Mr. Hill, in his *Monthly Visitor*, was much interested in this corn, and set forth its valuable properties in his paper prominently. One of my neighbors, desirous of obtaining it, employed me, through the mail carriers, to get half a bushel of the seed from Mr. Brown, of Moultonboro', N. H., for him, for which I paid a high price. The kernels of corn were very large and fair, as fine as I have ever seen. My neighbor gave me a quart or two of the corn, which I planted, and he the rest. It was planted on good warm corn land, in good, but not high cultivation. We were both much disappointed that the corn did not come up well. From ten to twenty, and perhaps twenty-five per cent. of it, did not vegetate. The stalks grew tall, but not stout, and the corn was not large or sound. We found it late, compared with common seed, and not well eared. A few years before, a Mr. Chadbourne, of Cornish, gave me some corn to plant, recommending it as productive and early. I tried it, and it failed in both particulars. Mr. Chadbourne subsequently informed me that his, that year, did the same. I was not then acquainted with the Brown corn, now frequently called the King Philip corn. After seeing and trying the corn we got from Mr. Brown, I was satisfied it was the same I had received of Mr. Chadbourne. Some four or five years since, at our York county agricultural and cattle show at Saco, some tresses of corn raised, it was said, on light land in Saco, were exhibited. Some of the King Philip corn and some of the Dutton corn. There was a wide difference against the King Philip kind, though both were raised in the same field, and with the same cultivation in every respect.

These facts, and others of a similar character, have produced a strong impression on my mind, that the King Philip or Brown corn, which I believe to be the same, is neither early or productive. I cannot account for its failure to vegetate, when it looked so full and fair; but I afterwards made the acquaintance of a Mr. Davis, I think his name was, in Bangor, who had migrated from New Hampshire, at the lower end of Winnipiseogee Lake, who told me that, at his father's, whose farm, I think, was on an island in the lake, they got their seed corn one year from Mr. Brown, and came near losing their crop in consequence of its not vegetating. He spoke of the corn with much disparagement, and I think he was correct.

Corn, in a very few years, will change materially and become acclimated, not only in time of ripening, but in other particulars. I have noticed this in many instances. The Canada corn, in a short time, will lose its earliness, unless care is taken to prevent it. The corn I now plant was originally the Canada eight-rowed seed, planted in Maine on the Passadumkeag, and thence on the Aroostook, whence I obtained it nearly twenty years ago. It has much improved in productiveness, very little eight rows, but ten, mostly twelve, some fourteen and some sixteen rows. I have preserved, in a great measure, its earliness by cutting up my seed from the best and earliest stocks in August. This practice seems to have the effect of short seasons in hastening the plant to early maturity. A Mr. Friend, in Alfred, many years ago, pursued this practice with our old-fashioned eight-rowed yellow corn, till his became about two weeks earlier than his neighbors, and was known and sought for as the Friend corn.

Mr. Stearns speaks of his corn changing color. This I believe is common, and one of the changes of climate. Some kinds seem to amalgamate or hybridize with other varieties, and others mix on the cob with different kernels of different colorand composition. Probably corn is susceptible of great improvements in a course of experiments in hybridizing, carefully made with various varieties.

I make these suggestions to put farmers on their guard against high pretensions of speculators in seeds of really no value.

RUFUS McINTIRE.

Parsonsfield, Me., Dec., 1860.

For the New England Farmer.

HARD TIMES---THE FARMER.

Hard times! hard times! I don't know what we are going to do, or what will become of us! These expressions I hear a dozen times a day, or something of the same import. And truly the times are hard, for our mechanics and most laboring men feel the pressure to a greater or less extent. There ever will be dull and hard times to those who depend upon the employment of others for their daily bread. Still, wealth would not be wealth, unless there were those willing to sell their labor for the sake of obtaining some of it. But I do not propose to discuss a question of political economy, but to remind the farmers who take the *New England Farmer* of their happy lot.

Every man likes to feel independent, to feel that he is not dependent upon A, B, or C, for his daily bread, and the comforts of a home, and that the nod of a nabob conveys no fears to him whether he shall have them or not; and if there is such a thing as a free and independent man, it is he who owns and tills his own broad acres. What cares he for the excitement and turmoil of the political world? Not that he feels no interest in these things; not that he does not love his country and this glorious Union, founded as it was by the tears, cares, wealth and blood of his fathers, the best of all governments. No, not these, for he feels and knows that he is one of that great army which make up the "bone and sinew" of all this greatness, which demagogues of the present day would rashly tear in pieces; but ere it is done, this "bone and sinew" must be consulted, or they "boast in vain." Happy will it be, if the present "excitement" and pressure of the time, shall cause the thousands of young men, who contemplate, or have left their quiet farm-home, to rush to our cities and larger towns for the purpose of "making haste to be rich," to pause and count the cost before the disappointments of life compel them to do so; and when they would fain do so, the good old homestead has passed into other hands, and those who had

loved them in childhood and sighed for their return, have gone to that heavenly homestead, and cannot return to welcome them.

Not a day passes but I hear some of our mechanics express the wish that they had a farm, but the obstacles to overcome, for them to accomplish their wish, are so great, that many of them will live and die in the positions they now occupy. Young man, take the advice of one who has seen a good deal of human life, of its ups and downs, and stick to the old farm, and cheer the old folks by the health and strength of your manhood. Stick to its quiet, virtuous and independent hard work, dirty work, as fops and snobs may call it, but which brings you good, honest, clean gold, and a conscience void of offence towards God and man. Stick by the old folks and the old farm, let what will come, and my word for it, when you are fifty years old, you will not need, but will give the same advice to any young man who should ask you. N. Q. T.

King Oak Hill, 1860.

For the New England Farmer.

THOUGHTS SUGGESTED BY THE N. E. FARMER, DEC., 1860.

Page 540.—*Egyptian Corn—(Deceptive and Offensive Advertisements.)*—The thanks of the readers of this journal, and of the farming fraternity at large, are certainly due to those who have given reports of their experience with this highly puffed humbug, as their natural repugnance to make a disclosure of their "greenness," or too great credulity, must have been overcome mainly by a benevolent wish to save others from being similarly imposed upon. The thanks of farmers are also due to the editor for giving insertion to a sufficient number of these disclosures and exposures to serve the purpose of assuring even the most credulous, that there can be no doubt but that this highly puffed corn is nothing more nor less than an iniquitous imposition—a veritable humbug, extensively advertised to obtain the hard earned money of farmers on false pretences. Both parties, the reporters and the editor, have certainly conferred a benefit upon the agricultural community by giving to the public these exposures—a benefit which is not confined to the prevention of further evil and imposition in this particular case alone, but which, with the more discriminating, at least, includes the prevention of other similar impositions. Those who fail to obtain from these exposures the portion of benefit last referred to, or who are caught in the very next trap baited for farmers, must belong to the class of the simple ones whose fate, it seems, is to "pass on," unbenefited by any warnings, and be punished. All others will learn from such a case as this, to be more cautious than heretofore in regard to all advertisements of a similar nature; while publishers and conductors of the press may take from it a hint of the need of the greatest carefulness, if they would avoid misleading their readers.

We may take the present occasion of saying that the rogues who practice upon, and profit by the unsuspecting credulity of farmers, and others, would not succeed so wonderfully as they seem to do, were it not that there appears to be an utter disregard of principle on the part of the majority of paper publishers in regard to the insertion of advertisements. Too many seem to admit into their advertising columns everything that is offered to them, however objectionable on the score of decency, or however plainly marked with tokens of being intended to defraud and deceive the unwary. The number of papers is but small, we fear, from which all such advertisements are strictly and invariably excluded. We long for the arrival of the day when papers polluted by indecent advertisements, as also those which admit advertisements which have any appearance of being deceptive or fraudulent, will not be admitted into respectable families. The dawn of that day is already come, for we know of a few families who have discontinued papers, whose publishers, after being admonished, or made aware of the cause of offence, persisted in polluting their pages with such advertisements as we have just named. Those editors and publishers who keep their publications pure of all abominable and rascally advertisements deserve especial honor, and will, we trust, secure an ever increasing appreciation and patronage. Such honor this journal deserves, for we are truly very much gratified in being able to say that we have never seen in the columns of the *Farmer* any advertisement calculated to offend the purest taste, or to mislead the unwary. And be it remembered that this is written several hundred miles from the office of said paper, and by one to whom both editor and publishers are, personally, entirely unknown, and that, of course, our testimony is wholly unbiassed and unsought. Besides, its truthfulness can be put to the test by any one so disposed, though attentive and observant readers will be ready at once to endorse and confirm it.

Page 542.—*Autumnal Shows.*—The perversion of our agricultural fairs grows worse and worse every year, and threatens to put an end to their usefulness. This would be a great evil, for the usefulness of unperverted agricultural fairs in stimulating to progress and improvement is so evident as to be generally acknowledged. Cannot the threatened evil be prevented? Cannot some ingenious Yankee devise an effectual mode of prevention or of cure? Until some such discovery is made, the best thing, perhaps, that can be done is to utter earnest protests, like this of Mr. Pettee, or to lay on the lash of ridicule, as has been pretty well done in the article quoted from the *Homestead*, on page 575 of this number.

Page 542.—*Apples.*—If the readers of this article, and of another on *Baked Apples*, on page 553, should give them the consideration which they deserve, and should regulate the dietary arrangements of their families in accordance with the salutary truths therein contained, the benefits resulting therefrom would be more, and greater far than the mere diminution of doctors' bills, alluded to in the former of these articles, though this of itself would amount, in some families, to more than the subscription price of this journal for ten or a dozen years, or even a score of them.

Page 546.—*A Profitable Grass Farm.*—We presume that not a few of the readers of this article, as well as the present writer, would have liked very much that the article had furnished them with more information than it does as to

the mode of culture, and the kinds of top-dressing used by Mr. Morgan, for who that reads of such extraordinary crops, as four tons of hay per acre at the first cutting, and two or three tons more at the second cutting, can fail to have his curiosity aroused, and a desire awakened to learn the process or processes by which such wonderful crops have been secured. Perhaps the editor could do no more acceptable or useful service to his readers than to recur to this subject, and furnish them with the fullest information within his reach, in regard to the modes of culture or management by which such marvellous crops have been obtained. Many would like such large crops, and may reasonably think that what has been done by one man, may be done again by others, if only they knew how.

Page 555.—Economy in Feeding Stock.—It must be truly gratifying to every human heart to witness the efforts made to improve the sheltering of stock, and to learn that an improvement in this respect is constantly being made.

MORE ANON.

EXTRACTS AND REPLIES.

LEGHORN FOWLS.

Can you or any of your readers give me light upon the Leghorn fowl? I have heard them spoken of very highly. Why are they not more common? Are they of recent introduction into this country, and from where? Are they hardy enough to make good winter layers in our climate? If of pure blood, are they always white, and do they have a large falling comb, like the Black Spanish?

What is the average size, and do they never want to set? Are they better layers than common hens? Are their eggs of good size? As I have been told,—do the pullets commence to lay at an early age? Are any for sale in this vicinity, and at what price? If not, can eggs probably be had in the spring for setting, and at what price? H.

Dartmouth, Dec., 1860.

REMARKS.—Mr. R. G. ANTHONY, of New Bedford, this State, in the *Monthly Farmer* for March, 1860, says he has kept the Leghorn fowls pure, and finds them "all he could wish." Their eggs are large, they are constant layers and rarely wish to set. Mr. L. R. Hewins, of Foxboro', in the same vol., page 166, says "the Leghorns have done the best with him of any fowls he has ever kept." He also states in the July number, page 304, that in size and habit the Leghorns are very much like the Black Spanish fowls; they lay younger than the Spanish; their legs and skin are yellow, with white feathers. They hatch well, and are very hardy.

HOW TO RELIEVE CHOKED CATTLE.

Put one arm over the neck, so as to have one hand on each side, find the substance that the animal is choked with, then place your thumb below it on each side, and shove it gently up into the mouth. I have relieved a great many choked cattle for myself and neighbors, and never found a case but I succeeded in. One case I had where the animal would not take it in to the mouth when it was shoved up; in that case we put a ring in to the mouth, and another person easily took out the offending substance, while I held it up to the swallow. LEVI DAVENPORT.

Coleraine, Dec. 4, 1860.

FOUL OF THE FOOT IN CATTLE—COCKED KNEES IN HORSES.

Can you or any of your subscribers tell me the cause and cure of foul of the foot in cattle?

What is the best time for cutting timber for fence posts?

What will cure cocked knees in horses?

Essex, Vt., Dec., 1860.

REMARKS.—Foul in the foot is generally occasioned, we think, by exposing animals to wet and cold mud or manure, in cold weather, and then tying them up at night without cleaning and drying their feet. Persons sometimes use a pair of oxen for several days in succession, in getting out manure, and keep them standing for most of the time in its strong juices, while they may be nearly at the freezing point, and then put them up with this matter congealed to their feet. The ox, as well as the horse, ought to be cleaned and "dried off," when taken from work, before he is put up for the night. To secure perfect cleanliness is the first step in the remedial process, and for this purpose a weak solution of blue vitriol forms an excellent wash. Mr. CHARLES ROBINSON, of Lexington, communicated to us a remedy, several years ago, as follows:

"Oil of spike, *oleum nardenien*, about a teaspoonful once a day to each foot, will effect a cure in one week. The claw should be opened, cleaned a little, and the oil turned in."

"A simple cure for the *Foul in the Foot*. After cleaning the foot, pour in a few drops of spirits of turpentine, and unless in very aggravated cases, two or three applications will be sufficient. I have always used it, and when applied in season have never known its failing."

We know of no cure for sprung knees in horses.

ONE HORSE THRESHING MACHINE.

An "Old Subscriber," from Ellsworth, Me., inquires in regard to one-horse threshing machines. Please allow me to state that we, (my father and myself,) have used the past season, for threshing wheat, one of A. W. Gray's single horse power, thresher and separator, and that its performance, in every respect, was satisfactory to us.

We think this machine has peculiar merits, such as lightness, portability, small amount of friction, thereby greater power, &c., which will not be overlooked by any one about to purchase machinery of this kind.

A horse weighing 950 pounds, with moderate elevation of the power, will thresh grain or saw cord-wood with expedition, and in the most perfect manner.

From the experience of one season, I should advise "Subscriber" to purchase one of these machines, and do his own threshing, sawing

wood, &c., in preference to hiring it done by hand or otherwise.

They are manufactured at Middletown, Vt., by A. W. Gray & Son, who will deliver them, to any address, at their depot. Single power, thresher and separator, $125; circular saw, 24 inches, filed and set, frame and balance wheel, $37.

M. A. THOMPSON.

Swanzey, N. H., Dec. 1, 1860.

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FATTENING OF SWINE.

I have looked with some anxiety for the experience of our farmers in fattening swine, since the statement that dry meal would make more pork than it would fed any other way. If that can be proved to be a fact, it will save pork raisers some labor. I have practiced scalding all my meal and then putting in milk or slops to make it so thin that it can be poured from the pail readily. I hope some one who has conveniences for weighing live hogs will give the matter a fair trial and report in the *Farmer*.

Roxbury, Vt., Dec., 1860. W. A. SIMONDS.

For the New England Farmer.

MESSRS. SMEE AND REED ON THE POTATO DISEASE.

In 1846 Mr. Smee, surgeon to the Bank of England, and F. R. S., published a small book upon the potato disease. I have not had an opportunity to read this work thoroughly, but have secured from his "Resume" the following conclusions:

"(4.) The plant is subject to death at various parts, or a sort of vegetable gangrene.

"(5.) This death, in the form presented by the present disease, is influenced, but not caused, by light, heat, electricity, moisture, soils and manure.

"(6.) It is, however, caused by the *Aphis* vastator, which punctures the leaf, sucks the sap, and destroys the relation between the leaf and the root, thus causing the leaf or some other part of the plant to become gangrened, or in other words, to die."

Mr. Smee also observes, that this insect attacks many other garden vegetables, and that, if not destroyed, it may cause famine in some districts, though he thinks the evil fleeting, as the vastator will probably be destroyed by other insects. Every remedy, however, should be employed, not only against the insect itself, but also to mitigate the *influences*.

That the Aphis vastator attacks other vegetables, I think in this country farmers have made no complaint. They decay, so far as they do decay, from the usual causes; and the wonder is, *why the potato cannot rot, without cause from an insect, as well as other vegetables.*

It will be seen by Mr. Smee's theory, that there are six powerful *influences* affecting the disease, which are usually regarded as the *causes;* and they are so numerous that it would seem they might overpower, if not entirely destroy, his insect. Besides, Mr. Wilson Flagg observes in the last Massachusetts Agricultural Report, (though I did not myself see the statement in Mr. Smee's book,) that Mr. S. found that when he placed the insects that infested the unsound tubers upon one that was sound, they would not remain upon it, but left it. Hence the reasonable conclusion that they feed only upon those which are already decayed.

It will also be observed, that Mr. Smee's work was published about two years after the disease appeared; and that further investigation and more extended observation may not, in his own opinion, have sustained the theory.

But I pass to the Hon. Lyman Reed, of Baltimore, who seems to have adopted Mr. Smee's theory—bating, perhaps, the influences—Mr. R. being, as I should judge, a pure, unadulterated insectorian. I mean no disrespect to him; for if he has spent time and money in the investigation of the potato disease, he should be honored, though the public may be disappointed in his developments. To sustain his theory—or to "establish these facts," as he says, namely, the facts which constitute the essence of his theory—he has certificates of seventeen members of Congress. Now, Mr. Reed thinks that there is no appeal from the opinion of these seventeen gentlemen! They have seen the insects, and they believe they destroy the potato. But Mr. Pourtales and Mr. Flint, who saw these same insects through the microscope, do not come to the same conclusion. They probably and very sensibly believe, that in abstruse, scientific investigation, it takes more than seventeen men, (M. C.'s though they may be,) to establish a fact, particularly against the general belief. And perhaps there has been no theory advanced relating to this disease, which may not easily procure seventeen intelligent gentlemen to certify that that is the true cause. Of course, that of the atmospheric theory could procure a legion, and probably Mr. Pourtales and Mr. Flint would be among the number, notwithstanding Mr. Reed's readiness to place them in defence of his "facts!" Yet all the theories cannot be true.

These members of Congress say in their certificate, "We feel convinced that a new and important discovery has been made." Of what? That insects are on the tubers. No one can dispute the test. By whom? Not certainly by Mr. Reed, for Mr. Smee claims priority. But they say, "*so far as we can judge,*" &c., where these insects have operated, the tuber "prematurely decays." Here the public, till more fully convinced, will join issue.

During the past season, some of my potatoes grown on new land, were found to be greatly eaten by the common white black-headed grub of the gardens. But they were not diseased, and have not since rotted on that account, though some of my potatoes have exhibited dry rot in the cellar. It would seem by this fact, that simply gnawing or puncturing a tuber does not predispose to disease any more than cutting with the hoe; and hence, that if the Aphis destroys it, it must be from the effusion of poison, as Mr. Reed claims. Yet I think the economy of this law a little remarkable, as I observed in a communication two years ago, and to which Mr. Goldsbury has alluded. By the way, is it demonstrated that *no* tubers rot except those which have been gangrened by the Aphis? If so, then he is a very ancient enemy, and only suddenly re-inforced himself in 1843. Do the variable states of the atmosphere, moisture, warmth, manure, or soil, generate or assist in generating this insect?

The microscope is a wonderful instrument; but while it reveals many important facts, it also presents those which are unimportant and trifling. It creates mountains out of very small mole-hills, makes monsters of mites, (myriads of which could not dust the surface of a diamond,) and frightens the epicure with thousands of sea-serpents in his oyster-water! Human beings may have well been denied by nature this infinitesimal vision.

"Say, why's not man a microscopic eye?
For this plain reason, man is not a fly."

But waiving all this, the practical question is, have we a remedy for the potato disease? Mr. Reed says *he* has, and it is patented, and rights to use it are for sale. Yet the committee of Congress were not convinced of this, for they cautiously say, "and *if*, as Mr. Reed asserts, he has found an infallible remedy," &c. But they were only judging of the presence and effects of insects, for which no patent could be expected. The patent was granted for the remedy, and Mr. Reed says it is successful with him. But why is it that cultivators know so little about this preventive? Why is it that nobody but the patentee can with certainty raise sound potatoes? Have not farmers faith enough to purchase the remedy, or do they have the remedy and disease both? If I were Mr. Reed, I would not discuss the *cause*, even with an angel; but I would show skeptical human beings that I could *give them sound potatoes*, and would prove that my patent right was really what I claimed for it, even if I supplied a hundred farmers gratuitously. In New England we know nothing of it, and how many years longer will Mr. Reed reiterate that he holds the one thing needful for successful potato culture? Even the gentleman's "immediate neighbors of Waltham, Mass.," to whom he appealed *nine* years ago for proof of the efficacy of his remedy, are not, as I have heard, eminently conspicuous above others for their sound potatoes! Further proof of the remedy is what is due to the patentee and to the public; and when he (or any one else with his remedy,) can grow a field of sound Chenango potatoes, and give evidence of it, year after year, letting them remain in the hill from May till the first of October, he will have gone far to show to the world that his theory is based upon facts.

West Medford, Dec., 1860. D. W. L.

INGENUITY OF THE SPIDER.

Let me put a spider in a lady's hand. She is aghast. She shrieks. The nasty, ugly thing. Madam, the spider is perhaps shocked at your Brussels lace, and although you may be the most exquisite painter living, the spider has a right to laugh at your coarse daubs as she runs over them. Just show me your crochet-work when you shriek at her. "Have you spent half your days," the spider, if she be spiteful, may remark: "Have you spent half your days upon this clumsy antimassar and ottoman cover? If I were big enough I might with reason drop you, and cry out at you. Let me spend a day with you and bring my work. I have four little bags of thread—such little bags! In every bag there are about 4,000 holes—such little holes! Out of each hole a thread runs, and all the threads I spin together as they run; and then they make but one thread of the web I weave. I have a member of my family who is no bigger than a grain of sand."

Imagine what a slender web she makes, and of that, too, each thread is made of 4,000 or 5,000 threads that have passed out of her four bags through 4,000 or 5,000 little holes. Would you drop her, too, crying out about your delicacy? A pretty thing for you to plume yourselves on your delicacy, and scream at us.

For the New England Farmer.

ENEMIES OF FARMERS.

In the town from which I write, the people are mostly farmers. My first impression, upon my first visit to the town, was one of surprise that so valuable land should be estimated of so little value, and that there should be so many poor among the people. I began to inquire, What are the causes of this lack of prosperity? What are the great enemies of the farmer?

My first inquiry was relative to the healthfulness of the locality. This resulted in a full conviction that the locality was decidedly favorable to health and longevity.

Is there any absence of market-privileges? There are few towns in New England very much more accommodated in this respect. It is near cities and large villages, and only a few miles from the railroad running from Portland to Boston. That is sufficient market accommodation.

What have the habits of the community to answer for in the account? The better portion of the people are industrious, economical and orderly. There are many men who habitually and practically despise the legal restrictions on the sale of intoxicating liquors. Here is, perhaps, one of the outlets which drain away wealth, and make men poor, and the manure-heaps scarce. Drunkenness is a deadly enemy to farmers and to farms. The cost and loss consequent upon the habit of drinking is not less than some dollars each for every man, woman and child in the community. And where is the community compensated for all this? Echo answers, where? Neither bloated faces nor sunken eyes are indications of agricultural efficiency. Then, again, another great enemy to New England farms and farmers is tobacco. Bite it, or burn it, or blow it, it will never pay the cost. Many a man eats enough of the nasty stuff, yearly, to pay the cost of bringing up a boy, or well towards it. Isn't that economy at a great rate? Farmers may as well afford to hunt and eat bed-bugs, as they can tobacco plugs. Dollars, again, for each man, woman, and child, is spent yearly in the community for plugs and polluted mastication-mills. "Farming won't pay!" See what rivers of rum have drowned those poor fellows who fell into the current; and what Senecas of spittle have issued from mouths that a whole month's winter-airing could not make sweet of smelling! Tobacco is a great enemy of the farmer, especially where a hired man goes on to the hay-mow with a lighted pipe! or when the match that lighted a cigar is thrown all a-blaze into the straw. It is a wonderful age of improvement!

"There's many a mill" to grind up farmers, as well as to grind their grain, but none of the men have any need to hop into the hopper. It seems

to me that God made farmers to be the ruling class in sobriety. Extravagance in dressing or dashing is enough out of place anywhere. But the lords of the soil must be a sober nobility; living at the tip-top of all moral, religious or social interests, and exempt from all habits of dissipation and fashionable extravagance, if they would realize their greatness. A fashionable fop, compared with a true young farmer, is about like a pauper compared to a king.

With a little attention, and proper dressing on the land, I have raised some ruta bagas the past season, weighing 14 lbs. apiece, on soil which has been scoffed at as worthless for an age. They were not sowed until about the twentieth of June.

Pardon the pinches on profligate practices.

Lee, N. H., 1860. COMINGS.

For the New England Farmer.

THE REVIEW OF THE SEASON.

MR. EDITOR:—From the records of the past, we may gather much that is instructive and interesting, regarding the period of time on which the farmer depends for his success in the productions of the farm. By comparing this season with former seasons, we may see the cause of success or failure in many of our crops. The great drought of 1859 continued till August, 1860, affecting the crops of the past season in a very serious manner in this region, but much more so near the shores of Lake Champlain, while at no great distance on either side we have accounts of plentiful crops.

April had a mean temperature of 41.18 deg., which is not far from the mean temperature of past years. The amount of rain was 0.87 inches—the smallest amount for many years. It fell during seven days, and the greatest amount in any one day was 0.36. Grass commenced growing about the 6th, and made but little progress during the season. The amount of cloudiness was 48 per cent.

May had a mean temperature of 58.70 deg., and was the warmest May for the past eight years, with the exception of 1859. The amount of rain was 1.23 inches, being the smallest amount for many years. Such extreme dry weather injured the crops materially. The amount of cloudiness was about 54 per cent. The first thunder storm took place on the 7th day—the same day on which the first thunder storm occurred last year. The mercury stood at 90 deg., at 2, P. M., and was the same last year at the same hour. The last frost of spring took place on the morning of the 21st day.

June had a mean temperature of 65.10 deg., which is about the mean temperature for several years past. The amount of rain was 2.54 inches—much below the usual quantity. The amount of cloudiness was about 51 per cent. Rain fell on 12 days, and the largest amount on any one day was 0.71 inches.

July had a mean temperature of 66.26 deg., which is about three deg. colder than the mean, and is the coldest July of the past eight years. The amount of rain was 4.27 inches—enough for all practical purposes were it not for the extreme dry weather previous. But the ground was not saturated, and was still rather too dry for vegetation. Rain fell on 15 days, and the greatest amount in any one day was 1.01 inches. The amount of cloudiness was about 53 per cent.

August had a mean temperature of 67.66 deg., which is 1.66 above the mean, and was the warmest August with the exception of 1859 for the past eight years. The amount of rain was 7.30 inches—the largest amount since 1856. Rain fell on 13 days, and the largest amount on any one day was 2.07 inches. The amount of cloudiness was about 51 per cent.

September had a mean temperature of 56.59 deg., which is 1.62 below the mean, and is the coldest September in the past eight years with the exception of 1859. The amount of rain was 3.52 inches, being about the usual quantity. Rain fell on 13 days, and the largest amount on any one day was 1.37 inches. The amount of cloudiness was about 50 per cent. The first light frost was seen on the morning of the 2d day, and the first hard frost sufficient to destroy vegetation was on the morning of the 27th.

The whole amount of rain during the year up to Sept. 30th, was 23.32 inches, and the whole amount from April 1st to Sept. 30th, was 19.23 inches. 4.64 inches fell in the first three months, or an average of 1.54 inches per month, and 14.59 in the last three months, or an average of 6.41 per month. This shows a great drought in the first part of the season, when crops needed rain, and rain enough during the ripening of crops. Summer period free from frost 103 days. Time free from frost sufficient to destroy vegetation 128 days. There has been a large proportion of south-east wind during the summer, but no heavy gales, and no severe storms of any kind.

Since September, the weather has been more favorable. Rain has fallen in abundance. The earth is saturated with water, and the prospect for crops next season is good. The temperature of October was 46.65 deg., being about the mean. The amount of rain was 1.92 inches, and of snow one inch, being somewhat less than usual.

November had a temperature of 38.92 deg., which is 3.31 above the mean, and is the warmest November for many years. The amount of rain was 4.62 inches, and of snow 2.75 inches. There was but little foddering done in November.

December up to the present date has been rather cold, but not very unpleasant. The mercury passed below zero for the first time on the morning of the 14th, eight deg., and on the morning of the 15th it stood 10 below, which is very unusual so early in the season. At this time the sleighing is tolerable, with a small amount of snow—some four inches. D. BUCKLAND.

Brandon, Vt., Dec. 17, 1860.

SLEEPING AND EATING.—Hall's *Journal of Health* says: "For persons who eat three times a day, it is ample and sufficient to make the last meal of cold bread and butter, and a cup of warm drink. No one can starve on it, while a perseverance in the habit soon begets a vigorous appetite for breakfast, so promising of a day of comfort."

ALL innovation upon established customs is invariably and sturdily resisted, and men are known to fight for their prejudices who would never fight for their country.

For the New England Farmer.

OUR GRANDMOTHERS vs. MODERN LADIES.

MR. EDITOR:—I thought my article in the *Farmer* of the 6th of October was made sufficiently plain to be understood by any one, *even that intelligent "Old Bach,"* who opened the first battery upon the weak fortress of an "Old Spinster." I find, however, that not only the "Old Bach," but "Polly" and "Anna" have been pleased to misconstrue a portion of said article. I can not see why the articles of "Polly" and "Anna" do not conflict more with each other than with mine. It seems that the most offensive part of my article was the sentence in which I mentioned the fact, that our grandmothers were educated as farmers' wives should be educated, not to play on a piano, or make pictures, (I might have said exclusive of everything else,) but to spin and weave, &c. I did not wish to insinuate, by any means, that our grandmothers were an uncivilized set of human beings, mere slaves, and nothing else, but I did mean to say that they were not afraid of work, and were not in the habit of leaving the management of their household affairs with "Biddy" in the kitchen, while they were squandering away their own time over a piano, or some frivolous picture.

They were willing to take their share of the burdens of each day, and bear them cheerfully, without a murmur, and when their husbands came in at night, after the toils of the day were ended, they were met by wives whose countenances wore a pleasant aspect, and who were ever ready to speak a pleasant and an encouraging word; they were capable, too, of giving their children good instruction, because they read the Scriptures more than novels. Our grandmothers could and did read their Bibles, and write a very good hand, too; and boys who were reared and trained by them, seldom contracted vicious habits. How is it with boys raised by some of our modern ladies? Too often the reverse, and for the reason that they too often leave the training of their children with some foreign "Bridget," while they are doing something else.

I do not wish you to understand me to say that all farmers' wives indulge in such a course. Such is not the case. But I believe that nine-tenths of those who are ever finding fault with their liege lords, and those who say the most about hardships borne by our farmer's wives, are those who are indulged as above, and know as much about hard work in the kitchen, as Biddy does about the piano in the parlor. The ideas that I wish to convey in my former article, as well as the present, are as follows:

First, that our grandmothers did not enjoy the advantages of modern inventions, consequently their tasks were much more arduous to perform; secondly, that they performed those tasks much more cheerfully than many of the farmers' wives do theirs at the present day, notwithstanding they enjoy all the advantages of modern improvements; thirdly, they were of sound minds, as a general thing, and although their chance for an education was very limited, they made greater improvements than many modern ladies do with all their modern chances for an education; fourthly, they were better wives, and better mothers, and better prepared to train up a family of children than many of the whimsical things of the present day; and last, but not least, they were not in the habit of publishing their domestic grievances in the newspapers, for the purpose of making a display of talents. I know this to be a fact, because one of them is the mother of the

"OLD SPINSTER."

Claremont, N. H., Dec., 1860.

THE AIR PRESSURE CHURN.

Among the improvements which an advanced civilization brings to light every day, and which go to bless mankind by exalting still higher that civilization, the farmer may enjoy his full share. He has not yet seen fit to avail himself of many of them, but is gradually bringing them to his aid, as custom or prejudice yields before the palpable evidences which they afford of increasing his profits.

Much more has been done to aid the farmer in the field, than to aid his wife in the dairy room, or kitchen, though she fully appreciates the washing machine, cooking stove, and other culinary and domestic improvements. Here is one, figured above, having a more immediate connection with the business of the farm, and one which we regard as substantial and valuable. We have now had it in use some time, making with it about seventy-five pounds of butter per month.

The first thing which we found in this churn to recommend it, was the neat and substantial manner in which it is made.

The second, the ease with which it is wrought.

The third was the appearance of the butter upon opening the churn; it was lying in one entire mass, and having the right temperature to secure its being worked over with ease and facility. This is an essential advantage, as in other churns it often comes so hard that it is difficult to work it at all. In the *Air Pressure Churn* it has invariably come in a perfect condition to be easily and effectually worked and made into balls, or packed down in tubs.

The fourth was the blue and thin appearance of the butter-milk, thereby indicating that nearly all the buttery matter had been extracted from the cream. We have, therefore, no doubt but this churn will bring more butter from a given quantity of cream than any other we have used.

The fifth recommendation, is the perfect ease with which the churn can be cleaned. It is formed like a keg, with one head out, having no holes, crevices, cranks or dashers in the way. The inside of the keg, or churn, is nearly as smooth as glass, so that with anything like a careful washing, it is scarcely possible for cream or buttermilk to remain attached to it. These two points —the fourth and fifth—we suppose, are gained by the compression of air into the churn, but whether by an increase of temperature, by the introduction of oxygen, or by more effectually breaking the globules which contain the particles of cream, we are not able to say.

The inventor of this churn, is Dr. R. P. Wilson, of New York. He called our attention to it, more than a year ago, and churned with it while we were present at three or four different times —but we saw nothing in those exhibitions that seemed to entitle it to merits not possessed by some other churns. Under this impression, we declined to receive, and test it at that time,—but after seeing the testimony of others in relation to it, and recalling an old maxim, to "prove all things, and hold fast to that which is good," we put it in operation, and have given the results above.

Since having made trial of it, we have conversed with Allen Putnam, Esq., who, twenty years ago, was Editor of the *N. E. Farmer*, and who states that he became so thoroughly convinced of its superior merits, that he has been willing to risk his means and reputation in placing it before the public, and in calling their attention to its superior advantages.

We do not recommend an immediate and indiscriminate abandonment of all other churns for this—and this is our rule with regard to all labor-saving machines not fully tested—but that those needing a churn may try this, or that those largely engaged in butter-making shall ascertain its merits, even though they have other good churns in use.

Address at the Sagadahoc (Maine) Fair. —This address, published in the Brunswick *Telegraph*, was delivered before the association, at Topsham, Oct. 10, 1860, by N. T. True, M. D., and is one of the best that we have read for a long time. To most of our readers, the initials, "N. T. T.," are probably more familiar than the Dr.'s name in full. We have marked for future publication one or two of the common sense suggestions which make up this address. The doctor, who is also editor of the Bethel, Me., *Courier*, is evidently a man of no small observation. "I have yet to see," he says, "the man in Maine who has enjoyed fair health, who has had a fair chance to make a farm, and who has exhibited a tolerable share of prudence in his affairs, that has not acquired a competency, with which to pass the mellow autumn of life in comparative comfort, surrounded by all the endearments of a quiet home."

CONVERTING BONES INTO SUPER-PHOSPHATES.

If you have not a bone-mill, you must break the bones with sledge hammers, and after with smaller ones, to reduce the bones to as small a size as possible; provide tubs or a brick tank of sufficient capacity, put in the bones, saturate them with hot water—pour in as much as they will absorb, but no more. Pour in sulphuric acid in the proportion of 56 lbs. of the acid to 112 lbs. of dry bones, stir the mass frequently, and in about a week it will be fit for use; first absorbing the mass to a sufficiently dry state for distribution, by mixing with it rich dry earth, bog mould, ashes or peat charcoal in sufficient quantity. As the dissolved bones lose by evaporation, it would be better to put off the process of dissolving until February, or March next; it will then be perfectly disintegrated or decomposed in time for use. If tanks or tubs are not convenient, the process may be effected by saturating the bones on a dry floor under cover, and mixing them up with the acid, as mortar is tempered, and immediately covering up the heap with the drying materials, and leaving to digest for a week or ten days, when it is turned over and thoroughly mixed with the drying materials.—*Irish Farmer's Gazette.*

SWEENEY IN HORSES.

Will you tell what you believe to be the best remedy for curing the sweeney in horses, as it is very troublesome to cure when it once gets fairly seated, and is very painful to the horses? A.

Answer.—The sweeney is a shrinking of the muscles of the shoulder, usually caused by a sudden strain in drawing, or by alighting hard upon the fore feet after a jump. We have had considerable personal experience with this difficulty in horses. If taken fresh, it is best to bleed the horse in the leg from the vein on the inside of the arm, called the plate vein, which will allay the inflammation; but for an old case, this is nearly useless. Also physic the horse, and apply fomentations upon the shoulder blade, and the inside of the arm. In all cases, take off the shoes, and give the animal rest in a pasture, or on a dirt bottom in a large stall. If the case is not of too long standing, it is well to rub the shoulders with penetrating oils, like oil of spike. Our practice was to rub with a corn-cob, and hemp crash cloth. When once seated, be careful of over-driving and cooling off, as you would for a case of founder. A long rest in the pasture is the best remedy we ever tried.—*Ohio Cultivator.*

For the New England Farmer.

HAY AND ROOT CROPS---THEIR COMPARATIVE VALUE.

Hay is the chief article of food for stock during the winter season; and, generally speaking, if a sufficiency of good hay is properly fed to stock, they will thrive upon it, and increase in weight and value. But it is not always, nor even usually the case, that farmers have a sufficiency of the best quality of hay to feed to their stock, with no exceptions in the way of coarse fodder, damaged hay, straw, etc.; and in case the latter is fed, or when the usual yield of hay has been reduced by reason of the drought, or other causes, root crops afford a valuable *auxiliary*, whether used in connection with the former, or as a substitute for the latter. Hence it often becomes necessary to know the comparative value of potatoes, carrots and ruta bagas, that farmers may be able to substitute, in part, these roots for hay.

It is becoming more and more the practice of our best farmers to feed out, not only their carrots, turnips, etc., but their potatoes, instead of selling them from the farm to be worked into starch, in the belief that the good of their farms demands it, and that their *purses* in the end will not be the losers thereby; and the more it is practiced, the more convinced are they of the economy and profit of such a course of feeding. Not only is the profit derived from the roots, as such, but the relative value of the hay, as well as that of the roots, is increased when fed together. And it becomes an object, the present season especially, for such farmers as have been deprived of their usual amount of fodder by the drought, to make the best of all such means to keep and improve their stock until the return of grass.

The following table, gathered from reliable sources, shows the value of potatoes, carrots and ruta bagas, the roots usually grown for stock, compared with that of *good hay*.

200	lbs.	of potatoes	are equal to	100	lbs. of hay.
275	"	" carrots	"	"	"
300	"	" ruta bagas	"	"	"

Again: by allowing 60 pounds to the bushel, of the above roots, we have the following:

67	bushels	of potatoes	are equal to	a ton	of hay.
92	"	" carrots	"	"	"
100	"	" ruta bagas	"	"	"

By this estimate, with the usual yield per acre, it will be seen that root culture *pays*; a fact of which many a farmer and stock-grower has been convinced by practical demonstration.

Lyndon, Vt., Dec., 1860. I. W. SANBORN.

EXPERIMENT WITH SALT.—E. Roberts communicates to the Philadelphia *Farmer and Gardener* the results of an experiment tried a year ago. When a field of an acre of turnips were putting out the third leaf something like one bushel of salt was applied to about one-fourth of the field. A very severe drought succeeded, parching up everything. The turnips did not appear to advance a bit in their growth, except on the portion to which the salt had been applied. Here they did not show the drooping condition so manifest in every other portion of the field. When the leaves of the unsalted portion were dry in the morning, the saltest part appeared moist, as though they had imbibed moisture from the atmosphere. The result was, a much better yield of turnips on the eighth of an acre than on the other portion. The fly did not attack this portion at all, though some of the other parts of the field suffered severely.

AUTUMN IS DEAD.

BY MRS. H. J. LEWIS.

The lilies beneath the wave are sleeping,
The vine no more o'er the wall is creeping,
The withered berries the turf are strewing,
The leaves are heaped by the wild wind's blowing.
Autumn is dead.

Where the reapers trod not a sheaf is gleaming,
Where the asters bloomed not a flower is beaming,
The grass is gone that in summer even
Was sprinkled with liquid gems from heaven.
Autumn is dead.

Grey is the sea with its moan and dashing,
Grey are the clouds with no sunlight flashing,
Wildly the sea-bird shrieks o'er the billow,
Making its foam a toy and a pillow,
Since Autumn is dead.

Now come the winds from the North, low telling.
Where the dread winter bides in his dwelling,
Ready to hush the soft silver ringing
Of streams that sadly murmur in singing,
Autumn is dead.

Softly as hush of the pale moon stealeth
A chorus of voices that life revealeth,
An insect's chirp, or a wild bird calling,—
A break in a silence else appalling,
For Autumn is dead.

Quick! strew his grave with the leaves and flowers
That gladdened his path through the darkening hours!
Quick with the chant and requiem holy!
See you not that he lieth lowly,
Because he is dead?

Dec. 1, 1860. *Transcript.*

DOINGS OF THE CATTLE COMMISSIONERS.

On Thursday week, parts of the two boards of the Cattle Commissioners of the Commonwealth met at Mr. Chenery's farm in Belmont, to kill the remaining portion of the 27 head purchased some time since by the Cattle Commissioners of Mr. Chenery. On the 25th of September they killed 4, on the 11th of October they killed 7, on the 16th, 6, and on the 13th of December, 4, including one in charge of the Medical Board, and returned 3 to Mr. Chenery for the same price they had agreed to pay him. Three animals still remain in charge of the Medical Board, and Mr. Chenery has now 13 head, including "Beemster," one of the cows obtained by the last importation, which has never been sick. The injunction of isolation still remains in force in regard to the remnant of this herd that numbered near 70 head a year and a half ago. Of these 27 died of the disease, and 23 have been killed by order of the Commission. One of the Commissioners said that the remaining 16 head should all be killed.

Of the animals killed on Thursday week, 3 were pronounced diseased with pleuro-pneumonia by

the Commissioners, and one perfectly well. The cyst or encysted matter in the lung of one of these animals was about the size of of a common shell-bark walnut, the matter being of a caseous appearance, and devoid of scent. In the other, the cysts were larger. The third case showed dark specks, whether cysts the writer did not have opportunity to observe, as the animal was killed before his arrival. The fourth had as clean a pair of lungs as a Jew would wish to see, in case he desired the flesh of the animal for meat.

In view of a statement made at the late meeting of the Ipswich Farmers' Club in England, and published in a late number of the *Cultivator*, that "In the case of the cows which died previous to calving, (of 'lung disease,' or pleuro-pneumonia) the lungs of the fœtus were found diseased; where the cows died after calving, the calves died in a few days from the disease." This has been regarded by some as going to establish the hereditary character of the disease, called pleuro-pneumonia.—*Boston Cultivator.*

EXTRACTS AND REPLIES.

HUNGARIAN GRASS.

I wish to inquire in regard to the Hungarian grass? What soil is it best adapted to—how much seed does it require to the acre—where can it be obtained, and at what price?

How would it do to turn over a piece of greensward in the spring, a light soil, which is filled with witch grass, and sow it with this grass for fodder? SUBSCRIBER.

Bath, N. H., Dec., 1860.

REMARKS.—A good Indian corn soil is suitable for the Hungarian grass. Six quarts of seed are sufficient for an acre. It can usually be obtained at the seed stores for from $3,50 to $5 a bushel.

Try the experiment with the greensward by plowing deep, harrowing until it is fine and manuring with fine compost—it will probably do well.

—

CUTTING TIMBER.

With regard to the time of cutting timber we have the following testimony from one of our oldest subscribers:—

Obed Baker, West Dedham, has cut timber for seventy years, got out frames for houses, &c.; cut pine timber at almost any time of the year—cut in the old of the moon. Has also cut oak for ship timber and brought in some for the Constitution—"Old Ironsides." Says, peel bark last of May, or first of June, in the new moon, when it will strip freely,—the wood of such trees would turn black and become sap rotten, but the same trees if cut in the old moon would be perfectly sound. Bushes cut in the old of the moon, December, die, and will not sprout. He has red cedar posts that have stood for one hundred years, and are still sound in the ground. His experience shows that the old of the moon is the time for cutting timber to preserve it. Posts set small end down outlast those set the other way. A little salt put in helps to preserve them. It is a good plan, also, to char the ends.

—

HAY FOR A HORSE—COMPARATIVE VALUE OF HAY AND GRAIN.

You know it is taken for granted that editors can answer all sorts of questions, at least, I take it so in this case, for you have told me once or more just the very things I want to know now, but like other dull scholars, I have forgotten, and I can't find the papers now. I wish to know how many pounds of good hay, cut up and mixed with four quarts of oats ground, (or their equivalent in some other grain,) is necessary per day, to keep a horse well, with but little work; weight of horse, 1100 lbs. Also, as the price of hay with us is high, and some kinds of grain are not very high, I think a table showing the comparative value of the different kinds of grain, hay, &c., if re-published in the weekly *Farmer*, would be thankfully read by many, as well as by

Your humble servant, J.

McIndoes Falls, Vt., Dec., 1860.

REMARKS.—It is impossible to say with exactness how many pounds of hay are required for each of ten horses, mixed with four quarts of oats. We have two horses standing side by side, and of nearly the same weight, one of which is not satisfied with much less than fifty per cent. more feed than the other, both doing the same amount of work. You will find a difference something like this in many stables. Is it not so with men and women. Some horses, doing but little work, will thrive well on ten pounds of hay and four quarts of oats, daily, while others would require fifteen pounds, or more of hay, beside the oats.

Strict regularity in feeding, accurately weighing the hay, with a close observation of the horse in regard to flesh, spirits, and the appearance of the hair, will soon enable you to judge with sufficient correctness as to how much hay he needs.

See table by I. W. SANBORN, in another column, on the comparative values of hay and grain.

—

HOW CAN MEADOW LAND BE IMPROVED?

I wish to get some information through the *Farmer* that may be of service in treating meadow land. A tract of low meadow land recently came into my possession, which, it is said, used to be productive, but now moss having overrun it and choked out the grass, it yields but moderately. I suppose it will not do to plow it, as it is overflown most all winter, if not quite all that season, and the soil would probably be washed away. Can some one who is acquainted with such land suggest some plan by which the moss may be destroyed and the meadow brought up to its original productiveness? A SUBSCRIBER.

REMARKS.—Overflowing the land will not injure it, provided there is not a strong current of water over it. The ditch, plow and manure, judiciously applied, will reclaim any soil, however obstinate.

For the New England Farmer.

THE BIRDS OF NEW ENGLAND---No. 9.

SHRIKES.

General Remarks on the order INSESSORES—The Great Northern Shrike, or Butcher Bird—American Gray Shrike.

In our brief notice of the birds of New England, we now arrive at the second order of the class *Aves* or Birds, the INSESSORES, or *Perching Birds*, at once the most numerous and interesting, the birds belonging to it nearly equalling the numbers of all the other orders collectively; and among such a multitude we may well look for a considerable diversity of forms and modifications of structure, with a corresponding difference in habits and dispositions, suited to the exigencies of the different tribes; yet a few general characteristics prevail throughout the order; and though species may be found in it differing widely in structure and habits, the connection between them is so finely graduated by the intervening forms that no break is observed in the great natural chain, but on the other hand, it is often difficult for systematists to define the limits of their different groups. The most prominent characteristic of the order is the power of grasping with the feet, or *perching*, as the name of the order indicates, which is possessed by all its members; the power of flight is also possessed by all in a perfect degree, and in many groups is highly developed; and from its possessing in general the greatest united perfections of the properties of a bird, it has been taken as the typical order of the class. Although the great part of the birds of this order are of small size, yet they are the most efficient in ministering to the pleasures of man, by their lively presence, animating our fields and forests with enlivening song, gaiety of colors and sprightliness of action, holding in check the myriads of devastating insects that would otherwise desolate our fields and render futile our labors. It is true that a few species are considered noxious at certain seasons, from their preying somewhat upon our fruits, and sprouting or immature grain, but these annoyances can generally be avoided, by proper precautions, the same birds making ample remuneration at other seasons for the little injury they may do. All the true song birds are embraced in this order.

In characterizing the Insessores, Cuvier observes: "They have neither the violence of the Birds of Prey, nor the fixed regimen of the Poultry and Water-fowl; insects, fruit and grain constitute their chief food, which consists more exclusively of grain, as the beak is stouter and stronger, and of insects, as it is more slender. Those in which it is strong even pursue other Birds." For greater convenience naturalists have divided this extensive order into five *tribes*, or *sub-orders*, basing their division upon natural characteristics, generally upon the form of the bill. The first sub-order is that of the DENTIROSTRES or *tooth-billed* birds, in which the bill is more or less notched towards the point, embracing the *Shrikes*, *Flycatchers*, *Thrushes*, *Tanagers*, *Warblers*, &c.; in short, a large part of the insectivorous birds, though many also feed considerably upon soft fruits. The other divisions are, the CANIROSTRES, or *cane-billed* birds, embracing the *Crows*, *Starlings*, *Finches*, &c.; the SCANSORES, or *climbing* birds, including the *Parrots*, *Woodpeckers*, *Wrens*, *Creepers*, *Nuthatches*, *Cuckoos*, &c.; the TENUIROSTRES, or *slender-billed* birds, embracing the *Humming-Birds*, *Sun Birds*, *Honey Suckers*, the gorgeous *Birds of Paradise*, &c.; and the FISSIROSTRES, or *cleft-billed* birds, this name from their wide mouth, containing the *Kingfisher*, *Night Jars*, *Swallows*, &c.

Systematists differ considerably in their views in regard to the importance, magnitude and relations of the different groups; the ingenious arrangement of Mr. WILLIAM SWAINSON, a well-known and erudite naturalist, seeming as well based in nature as any, will be chiefly followed in these sketches, particularly in this order; but space does not allow, nor necessity require, at this time, an extended discussion of its principles. The *Dentirostres* are divided by this gentleman into five families; the Shrikes (*Laniadæ*) the Thrushes (*Merulidæ*,) the Warblers (*Sylviadæ*,) the Chatterers, or (more properly) the Fruit-eaters (*Ampelidæ*,) and the true Flycatcher (*Muscicapidæ*.) Each of these families are also divided into five lesser groups or *sub-families*, a large portion of which are unrepresented in our fauna. Of the first family, *Laniadæ*, we find representatives of two of its groups; the *Lanianæ*, true shrikes, and the *Tyranninæ*, embracing our Flycatchers; the true Flycatcher (*Muscicapa*) as restricted by Cuvier, Swainson and others, being confined to the eastern continent, though in the system of Linnæus, the American Flycatchers range in the genus *Muscicapa* of that renowned naturalist.

It is everywhere observable in nature, that the transition from one class of animals to another is by minute and beautiful gradations; thus in the *Laniadæ* we meet with birds possessing the intrepid spirit and predacious habits, inasmuch as they subsist upon living prey, of the rapacious birds; and in the true Shrikes the bill is strongly toothed, as in many of the birds of prey, and they feed more or less upon living birds. The Shrikes are found generally in limited numbers, in all parts of the world, but they more particularly abound in Africa and the warmer parts of Asia; North America possesses but five species, and only two are found in New England, but one of which can be mentioned as a regular visitant. Nearly all the species are noted for their cruelty and tyrannical disposition, some foreign species, as the *Lanius collaris* of South Africa, which has become proverbial for its cruelty, pouncing at every opportunity upon small birds, locusts and other large insects, immediately impaling its victim on a thorn, leaving it to dry in the warm and arid atmosphere; thus pursuing its murderous career throughout the day, apparently from a love of mischief rather than a desire for food. From their cruelty, the Shrikes have, by some naturalists, been classed with the rapacious Falcons.

The species most common to New England is the noted BUTCHER BIRD, or GREAT NORTHERN SHRIKE, (*Lanius borealis*, Vieill.,) which regularly descends to us from Canada and more northern regions in the latter part of autumn, migrating as far southward as Virginia on the sea-coast, and Natchez on the Mississippi, in the interior, a few remaining with us throughout the winter. On the return of spring they retire to the north to breed, or to the mountainous parts of the Middle and Eastern States, frequenting, at this season the deepest forests, where they construct a large, firm

nest, of dry grass lined with feathers, generally in the fork of a small tree, not far from the ground. The eggs, four to six, are of a pale cinereous tint, thinly marked with rufous spots and streaks at the greater end. They are bold and energetic birds, preying upon small birds and various kinds of insects, particularly grasshoppers, which it has the curious habit of impaling upon thorns, without apparent design, unless for mere diversion. It is always active and persevering, often seen pursuing birds of quite large size, holding frequent contests with the Blue Jays, which seem to rather fear it, as well as detest it. It has been known to pursue and finally strike to the ground by a single blow, the common Mourning Dove, (*Ectopistes Carolinensis*,) and other birds larger than itself; and I have seen one repeatedly pursue the common domestic Pigeons, evidently with the same intentions. Its manners somewhat remind one of a small Hawk, and its audacity is rarely equalled by any of the Falcon tribe, it having been known to attack birds in cages, under the immediate protection of man. Its flight being strong and well-sustained, it darts upon and kills small birds with ease, and drives all larger ones from its precincts, yet its chief food is believed to be insects, especially in summer. It possesses a variety of low, pleasing notes, and has the power of imitating the alarm notes of many small birds, and thus sometimes attracts an anxious company around it, soon darting upon one of the number, and filling the air with the cries of a real victim. Its sagacity is often observable in other ways. These birds are at no time very common, and consequently are not generally known.

The length of this bird is ten inches, extent thirteen; plumage above, pale cinereous; wings black, barred with white, and possessing a spot of white on the primaries; beneath, nearly white, sometimes a little dusky, with fine, transverse, curving lines of brown; a patch of black extends from the nostrils backwards to the middle of the neck; the young for several months, and sometimes the female, are quite ferruginous on the upper parts.

The other New England species is the AMERICAN GRAY SHRIKE, (*Lanius excribitroides*, Swain.,) is very rarely met with in the Northern parts of New England, but was once seen by Nuttall near Boston. It inhabits the more northern parts of the continent, being still more boreal than the preceding species, to which it is closely allied in size and markings, and the habits of the two are said to be precisely similar.

The other North American species are, the *Loggerhead Shrike* of the Southern States, (*L. Carolinensis*, Wils.,) which feeds much upon mice, darting upon them like a Hawk; the *White Crowned Shrike*, (*L. elegans*, Swain.,) inhabiting the country around Hudson's Bay; and the *Nootka Shrike*, (L. Natha, Penn.,) found in the northwestern parts of the continent. J. A. A.

MAKING VINEGAR.—Vinegar, according to a writer in the *Genesee Farmer*, is cheaply made. We republish his recipe:—To eight gallons of clear rain water, add three quarts of molasses; put into a good cask; shake well a few times, then add two or three spoonfuls of good yeast cakes. If in summer, place the casks in the sun; if in winter, near the chimney, where it may warm. In ten or fifteen days add to this liquid a sheet of brown paper, torn in strips, dipped in molasses, and good vinegar will be produced. The paper will, in this way, form what is called the "mother," or life of vinegar.

PREPARATION OF BONES FOR USE.

The best and cheapest method of preparing bones for manure is, first, to boil them in strong ley, a few hours, to extract from them the animal matter, or what would be more convenient, perhaps, break them as fine as convenient, and put them into a tub of ley to remain there during pleasure, until the animal matter is all extracted and incorporated with the ley. The mineral part of the bones will now be found very friable and easily pulverized. They should be rinsed clean, pulverized, and put into another tub or trough. Apply to them some diluted sulphuric acid, in the proportion of one of acid to five of water. Stir them frequently, and in a short time, they will be entirely decomposed and fitted for use. These two masses, being equally rich in the elements of fertility, the one of ammonia and the other of phosphorus, are equally valuable as fertilizers, and adapted to any and every variety of soil that may be deficient in these elements, and equally necessary for the healthful maturity of every growing plant, whether of grain, grasses, fruits, or roots. I now advise a mixture of these two masses with the general compost, to secure a general diffusion of them upon the different fields to be manured. My reason for the general diffusion of these masses, upon the different fields is, first, every plant needs them. Secondly, the farmer's resources, in this line, will be mainly within himself. This will be true of those that live at a distance from villages and cities. Their resources must be small. Thirdly, the elements of the bone, both animal and mineral, were taken from the different fields, and should, therefore, be returned to the same fields. To keep up the fertility of each field, it is necessary to return to it annually the same elements that are taken away. The farmer may secure a larger crop of any kind, on any field, by robbing other fields of the same elements of fertility to enrich that one. But such a policy would not only be bad, but ruinous if pursued.—*Country Gentleman.*

RURAL TASTE.

To owners of very small places, who still wish them to look well, the safest council is, do not plant large trees,—not one even; keep your grass continually shorn, your hedge evenly trimmed, your little flower-bed in perpetual order. Set out such flowering shrubs as will from spring to autumn give you a constant renewal of blossoms. So continually are new varieties now introduced from all parts of the world by scientific botanists, that it is quite unnecessary to name a choice; and, when differences of climate and soil are to be considered, much better advice can be given on the spot by a practical seedsman, than by a review destined for all latitudes. Still of hardy ornamental shrubs we may safely suggest the Althæas, the Deutzias, the Persian Lilac, the Py-

rus Japonica, and especially the Moutan Peonies and the Weigelias, the last two introduced lately from China, by Mr. Robert Fortune. Evergreen shrubs, on the contrary, we cannot recommend; unless the cultivator has ample space and shade for them, they will not, in spite of all that has been said in their favor, stand our New England autumn and winter suns, but turn brown and dingy when we most want them bright. The flower-garden in its perfection is of course unattainable without great care and expense; but five dollars a year, judiciously laid out in seeds and bulbs, will, from one tiny plat, yield, from the first crocus to the last crysanthemum, a perpetual joy.—*Christian Examiner.*

For the New England Farmer.

CITY AND COUNTRY.

BY JUDGE FRENCH.

It is rare that we "talk politics" in the *Farmer*, but just now, when a new administration is coming into power, and when those who have so long been *Outs*, are about to be *Ins*, there may be occasion for a short sermon to young farmers, as to their duties to their country and themselves. With a new administration, comes the idea of change, and our young men look about them for some new road to fortune. It would be difficult to estimate how many of our readers are just now meditating some change in their affairs, how many are hoping to get away from their farms and workshops into easier and more lucrative positions. How many of you have not already been asked to use your influence to get some friend an office under President Lincoln, and how many are spending watchful nights in the anxious hope that some clerkship or Custom-House place may fall to his share in the grand division of offices!

A mania for getting out of the country into the city has always possessed the young, while business men in the city are carefully investing their money, hoping by-and-by to purchase a home in the country, and spend yet many peaceful years on a farm. Of the disappointments which await the latter in their ignorance of the management of the affairs of the farm, we will not now speak; but content ourselves with some words of warning to the former.

Don't leave home for an office in the city! There is no place which you are fit for that is worth your taking! It is true a salary of fifteen, ten or even five hundred dollars a year, just for four or five hours daily work in a comfortable office in Washington or Boston, seems very comfortable to a man who lives on a milk-farm, and rises at three or four o'clock in winter mornings, to milk a dozen cows, and works all day long, and barely supports his small family at that.

We all know men who have left their wives and little children, or younger men who have broken ties only less near, and gone to distant cities, to hold some government office, really believing they were doing better for themselves and those most dear to them, than by pursuing their regular avocations at home. Possibly this may be so, but usually it is not.

If you take an office, of course you expect to wear a collar with your master's name upon it! You are somebody's subordinate, unless you chance to be President, and then you are everybody's servant! You are to talk, and think, and vote, as the head of your office does, and pay a per centage of your salary to carry out his political schemes. You live, like the king of old, with a sword over your head suspended by a single hair; and must soon lose your manhood or your office, and probably both. The longer you remain in place, the less are you fit for any position which requires energy, and self-reliance.

And especially, young man, if you have a wife, make no arrangement which shall separate you from her. You have vowed to share your fortune with her, for better or for worse, and though she may, with breaking heart, submit silently to what you decide to be best, no money nor earthly prosperity, can compensate for a long separation. If your new position will not maintain you together, it is a temptation of the adversary, and not a good Providence, that calls you away.

Again, the comparative expenses of country and city life are little understood by farmers. They are not apt to appreciate how much the farm contributes to their support. We often hear persons in the country talk in this wise: "It cannot cost much more to live in Boston than here in the country. Flour and groceries are cheaper in the city, and so is clothing of all kinds, and meats of all descriptions bear about the same price as here. Fuel cannot be much more expensive, because coal is far cheaper in the city, and coal is about as cheap as wood, already, fifty miles inland. To be sure, rent *is* a little higher, but not much,"—and so the temptation to desert the soil for any little salary in the city is very great.

Now this sort of estimate is far aside from the truth, not so much in the details given above, as in the deductions from them. Let us look at a small farmer, as we know them in great numbers in New England. He has a fifty or one hundred acre farm, with a dozen or twenty head of cattle, a horse or two, a small but comfortable house, schools for his children the greater part of the year, the meeting-house and lecture-room not far off, and good roads and good neighbors.

He works hard, lives prudently, and adds but little to his substance. He is a man, self-reliant, independent, as good as his neighbors or anybody else, commands his own time, and is no man's servant. He thinks, talks and acts according to

his own convictions of right. He is connected with the parish, perhaps the church, takes an interest in the schools, in town affairs, in county affairs, in State affairs. He is a part of the machinery of society, identifies himself with its interests, and feels himself, as he is acknowledged by others,to be of some importance. His opinion, his silent example, even, exerts an influence on all around. He is, in the best sense, a Freeman.

Now this man has more to lose than he is aware of, by a surrender of his position, and becoming a resident of a city.

As to the expenses of his family—he will find that two or three hundred dollars a year will not give him the rent of a house so comfortable as his own; that although flour and sugar may cost him no more per pound, it will require a large amount to pay for the milk and eggs and butter and lard, and vegetables and meats, that used to come so easily from the farm. He will find, that in every direction there is an increase of expense. The incidentals, of which little account was made before, assume importance. Everything costs in the city. You cannot be born, or be married, or be buried, without frightful bills to pay for it. A free lot in the old graveyard, or a lot for a small sum in the rural cemetery, gives the country resident and his loved ones a resting-place with his kindred and friends, while a spot in Mount Auburn, with respectable adornments, can be provided only at the cost of hundreds of dollars. It is enough for any man to dress and live as well as his neighbors, and he cannot easily do less. The general style of the city is more expensive than that of the country. The last year's coat, or bonnet, or dress, might appear well enough in the village church, while in the city it would be quite shabby.

But money is not the chief end of man. Children of the middle classes are better bred in the country than the city. They have better air, better exercise, better health, better morals, and better intellects. Children of the rich, who live in Beacon Street, and who have gymnasiums and riding-schools, and money to buy in the city the blessings which the country gives to all alike, may perhaps lose nothing by a city life. These luxuries are not, however, for the common people.

We are progressive, and in favor of change when it is for the better, as it often may be. We designed merely to give a word of caution to those who may be looking to politics for a chance to escape from the country to the city. To such, in good time, we would repeat the old-fashioned saying—"Let well enough alone."

WORKING BUTTER.—A correspondent of the *Homestead* says a thorough working of butter is better done by taking the butter in the hand in lumps of three or four pounds each, and slapping it against a hard surface, than by using a ladle, as is generally practiced in New England dairies.

EXTRACTS AND REPLIES.

CRIMSON CLOVER.

I wish to inquire if the crimson clover can be sown with grain as other grasses, or does it have to be sown every year? Where can I get some seed? C. F. LINCOLN.

Woodstock, Vt., Dec., 1860.

REMARKS.—A few weeks since we illustrated the "Scarlet or Italian Clover," accompanied by a brief notice. On an examination of some of our English books we find a pleasant account of it. In a work on "Farm Crops," by Professor Wilson, of Edinburgh, it is stated that the Scarlet Clover is an *annual* plant, having a habit of growth and an appearance which readily distinguish it from any of the ordinary clovers. The stem is upright and branched; the leaflets broad, nearly round, and with the stem covered with hairs; the flower-stalk rises to some height above the last leaves, and is surmounted by an oblong cylindrical spike, tapering towards the top, and consisting of bright scarlet or crimsoned colored flowers, which give the crop a very beautiful appearance. It is extensively cultivated in the sheep-farming counties of Scotland. The practice there is to sow it on stubble land as soon as the grain crop is off, broadcast, and harrowed in, at the rate of 12 to 20 pounds per acre. Owing to its rapid and vigorous growth; it gets firmly rooted in the soil before the winter sets in, and in the spring furnishes an abundant supply of green food for cattle; or if allowed to stand for a hay crop, it comes into flower early in June, when it may be cut. The product is liberal, and the hay as well as the grass is generally relished by cattle.

Since the publication of our drawing, many inquiries have been made in relation to this clover, and a disposition is manifested to employ it as a fodder crop. We suggest that it will be well to experiment on a moderate scale with it, until it is better understood.

We do not know where the seed can be obtained, now—but if there is a demand for it, seedsmen will soon obtain a supply.

RINGBONE ON HORSES.

I have a yearling colt which I think has a ringbone growing on his fore foot; can you inform me what will cure it? THOMAS HOBSON.

New London, Dec., 1860.

REMARKS.—Ringbone is a difficult matter to deal with. We lost an old, but very fine horse, last year by ringbone. Mr. W. H. CHAFFEE has communicated to the *Rural New-Yorker* the fol-

lowing: "Make a bag of strong linen cloth, about two inches broad, and eight inches long; fill it with copperas, and tie it on the foot just above the ringbone, and wet it twice each day. Keep it on about four weeks."

Mr. A. BRIGGS, of Deerfield, Mass., states that he can cure ringbone in seven cases out of ten.

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A STEAM APPARATUS—RAPE CAKE—MALT COMBS —TOP-DRESSING GRASS LAND.

Your good-nature in answering questions encourages me in framing a few interrogatories.

What is a steam apparatus; and how is it contrived; and where can one be seen or purchased? Such an one as Mr. Horsfall, the Scotchman, (as described by Flint,) probably used.

Can rape-cake be procured, and where? Malt combs also; how are they obtained?

What is the most approved way of breaking up green sward to cultivate and lay down again to grass? One of my neighbors says, turn the sod the thickness of two inches, in the autumn; manure the next spring, and harrow it in.

Another says, plow two inches, but after spreading manure, (also in the autumn.) Top dress in the spring and harrow it in.

Another yet says, it will pay to top dress, *then* plow eight inches. In the spring cross plow ten inches, then top dress, harrow in. It is to be understood that a respectable quantity of manure is used.

When is the best time to top dress mowing, i. e. when will the manure benefit the land most, just before snow in the fall, or just after snow in the spring?

Very short answers will do.

Yours, C. T. S.

Harvard, Dec., 1860.

REMARKS.—*Steam Apparatus.*—A steam apparatus for steaming food for stock consists of a small boiler and force-pump, with some leading pipe and a large feed-box in which to steam the fodder. Mr. WILLIAM BIRNEY, of Springfield, and Mr. H. H. PETERS, of Southboro', each have one in operation.

Rape Cake and Malt Combs.—It is hardly probable that the first of these articles can be obtained, as the rape is not cultivated here. Malt combs may be obtained at breweries in the cities.

Laying Sward Land to Grass.—Soils vary so much that no one practice will suit them all. If you do not wish to cultivate the land, plow 8 or 10 inches deep, the last of August, manure liberally with *fine* manure, and you will not fail of satisfactory success. Top dressing and plowing in the autumn and then plowing, top dressing and harrowing in the spring, would be a thorough process, but rather an expensive one—although the oats or other crop sowed with the grass seed would partly pay the cost, but at the same time exhaust the land.

Top Dressing Grass Land.—No one can say with absolute certainty what the best time is to top dress grass land. If we could do just as we please, we should top dress grass land as soon as the hay is carted off in July. It is essential that the manure should be very fine. It is better to apply manure to grass land in the fall, because it injures the surface to go over it in the spring.

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COUNTY SURVEYS.

I have noticed your commendation of Mr. Geddes' survey of Onondaga county, N. Y., as published in the N. Y. Transactions for 1859. If our Board of Agriculture could bring about a like survey of each of the counties in our own State, it would be doing a service worthy of everlasting remembrance. As their meeting is adjourned to the 8th of January, a day somewhat memorable in our history, I trust you will pardon this suggestion.

Note.—One of our most intelligent citizens is now engaged in preparing a geological survey of this county, which, I trust, will be forthcoming the present year. ESSEX.

December 24, 1860.

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AUSTRALIAN OATS.

I wish to inquire if the Australian oats, so called, have proved more profitable than our common oats? A Mr. Lincoln, of Woodstock, advertised them two years since for one dollar per bushel, put up in bags and delivered at the station. A man in an adjoining town is now asking $1,50 or $2 a bushel, and I for one don't like to pay that, if my Woodstock friends are feeding them out for what they are worth to their cattle. If this inquiry induces any one to advertise, I hope he will be prepared to furnish them unmixed with other oats, and free from foul seed.

W. I. SIMONDS.

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HOUSE PLANTS.

I want to get some information in regard to destroying lice on house plants. E. P.

Centre Brook, Conn., 1860.

REMARKS.—Dissolve half an ounce of bitter aloes in a gallon of water, and syringe the plants both above and under the leaves.

—

"THE SON OF A FARMER."

It is impossible for us to give our young friend the advice he asks without a more minute knowledge of his circumstances, tastes and habits of life. He must consult some judicious friends who know him, as to the pursuit he should choose.

VETERINARY SURGEON.—We learn that Dr. GEORGE H. DADD, so long a distinguished Veterinary Surgeon in this city, has removed to Cincinnati, for the purpose of establishing a Veterinary School, and of practicing the science of Veterinary Medicine and Surgery in that city. Dr. DADD is skillful and devoted to his profession, prompt in attendance and courteous in manner. We wish for him a wide sphere of usefulness.

THE APPLE PLUM.

The beautiful engraving which we give above is an illustration of the *Apple Plum*, which we suppose is a comparatively new fruit. During the last summer, our Mr. TOLMAN, of the *Farmer*, visited the grounds of his friend VANDINE, at Cambridgeport, to look at his fruits, and to select some for illustration. Among others—some of which we have already given—he was attracted to the apple plum in consequence of its abundance upon the tree, and the fairness and beauty of the fruit and foliage. From the specimen which he brought away, the above engraving was drawn.

Several modern fruit books were examined before we could find any account of this fruit; but in the new edition of Downing we find the following:

That the apple plum is "from the garden of D. U. PRATT, Chelsea, Mass. Fruit medium, roundish, flattened, a little swollen on one side, suture medium. Skin reddish purple, with a blue bloom and light dots. Stalk short and stout, inserted in a broad, deep variety. Flesh greenish-yellow, a little coarse, sweet, sprightly, with a considerable austerity of the skin. Adheres partially to the stone. Ripens first of September."

Mr. Vandine, who has a large variety of plums, and meets with better success in their cultivation than any other person with whom we are acquainted, classes this as among the good fruits, though not first class; its leading merits are its abundant bearing, and the vigor of the tree.

CORN.—We have heard some complaints that corn does not dry well this year, in consequence probably of the effects of early frosts. The New Hampshire *Journal of Agriculture* says:

"Some of our farmers have placed a stove in their corn houses, and by keeping up a good fire they have very much hastened the process, and prevented further injury."

SHELL LIME.—Shell lime is very superior to stone lime for agricultural purposes, as it contains considerable phosphorus. Wherever it can be obtained, it should always be preferred by farmers.

HOME TREATMENT OF DIPTHERIA.

An article appears in a leading New York journal upon the origin and cure of the Diptheria, which we have not room to copy at length, but which seems to us to present so easy and reasonable means for lessening the sufferings and promoting the cure of children or adults when attacked by this terrible disease, that we give below a summary of its more prominent statements. The line of distinction between Croup and Diptheria is drawn as follows:

This disease, though in many respects resembling croup—and in certain others, quinsy, is distinguishable from both by certain well-marked characteristics. Like croup, it is accompanied by the formation of a false membrane in the windpipe, which, if left to itself, accumulates till the air-passage is closed and death ensues. But the false membrane of croup is an exudation of natural lymph from the vessels of the mucous membrane stimulated to excess by high febrile condition of the tissue. While on the other hand, Diptheria is scarcely ever febrile in its pathology, and its pseudo-membrane is the result of a *sloughing off* rather than an *exudation* of the mucous coating. Croup belongs to the inflammatory type of diseases—Diptheria, save in exceptional cases, does not. In croup the breath of the patient is usually untainted. In Diptheria the breath is characterised by a peculiar and sometimes almost intolerable fœtor. The lymphatic discharges of croup are seldom acrid. The discharges from the nose and mouth of a Diptheritic patient ichorous and excoriating to the highest degree. Croup is not particularly prostrating to the general strength of the person attacked by it. Diptheria is invariably accompanied by extreme debility, and a loss of muscular as well as nervous tone, which often continues for months after the immediately dangerous symptoms have been overcome. Finally—Diptheria is contagious—Croup is not.

As to the treatment of Diptheria there are therefore two ends to be kept in view—

1st. To evoke and sustain all the natural vital forces of the patient.

2d. To rid the air-passages of the false membrane.

For the first object strong beef tea is recommended, and the sesquioxide of iron has been most advantageously employed. But as to the second end, the method lately discovered by Dr. L. A. Sayre of New York, is what seems to us particularly worthy of note for the home treatment of the sufferer. Finding that the discharge from Diptheria, as expectorated, would remain in a liquid state in a condition of sufficient moisture and warmth, it occurred to him that if from the first stages of the formation of the false membrane a hot and humid atmosphere could be kept in contact with it, it would remain soluble and be easily ejected through the nose and mouth like common mucus. After trying several ways of accomplishing this object—there being objections to the vapor bath on account of its relaxing effect upon the system,—Dr. S. finally adopted the following method, which is certainly well worth noting down in every family:—

Having put the patient in a tightly shut room—he had a flat iron heated to as near the white heat as possible. He suspended it over a pail in the sick-room, and kept the attendants pouring water on it till it ceased to evaporate every drop that came in contact with it. As soon as the iron was cooled down to such a degree that any surplus of water remained unevaporized, he replaced it with one freshly heated. He thus kept the room as full of steam as was consistent with comfortable breathing—and at a temperature of 80° F. This process was continued for several hours—during which not only the freshly sloughed membrane was constantly being expelled in liquid form through the nose and mouth, but membrane previously indurated in the trachea became soluble and was ejected in like manner. Meanwhile he kept up the strength of the patient by the above referred to means of beef and brandy.

The result of this treatment was an entire expulsion of the slough—and eventually, the complete cure of a case which had previously been abandoned as too desperate for even the dernier operation of tracheotomy.

The utmost care of the patient for weeks after the immediately dangerous symptoms have disappeared, is necessary to prevent a subsidence into the diptheritic state. Even where there is no return of the sloughing tendency, the general prostration of the system is usually so extreme, that the most nourishing tonics, and stimulant treatment, is called for to ward off a naturally supervening attack of typhoid or low nervous fever—rapid decline—or chronic debility. There is, perhaps no form of disease known to the children's practitioner, in which skillful hygeine and home-treatment is more imperatively demanded to follow up and perpetuate the results of medical effort. If possible, the greatest care must also be taken during the period of fœtid discharges to separate the remaining children of a family from the diseased one, for, as we have above observed, this stage of the disease is quite infectious.

We notice that Diptheria is again beginning to manifest itself as an epidemic in some of the rural districts of New York and the neighboring States. The words we haxe said may be of still more use in a city like ours, where life is so closely packed—infection and death so easy. But of these latter evils there is no need. Cure is now measurably simplified—prevention simpler still.—*Country Gentleman.*

How to Throw an Ox.—Mr. L. Hendrick, in the *Genesee Farmer*, thus describes a simple method practiced by him on one occasion when he wished to extract hedgehog quills from the animal's hind foot: The ox was first placed on smooth ground, and the left, or near side, fore foot tied fast to the leg above the knee. Then a rope was tied around the ankle of both the off side feet, and two men standing on the near side, pulled gently on these ropes, at the same time crowding against his side. A man was stationed

at the off side of the animal's neck, to attend to his head while coming down. The ox seeming to fear a fall, readily dropped on his knees and down upon his aide. The ropes were then held securely, and the quills easily extracted with a bullet-mold for nippers.

IF WE KNEW.

If we knew the cares and crosses
Crowding round our neighbor's way,
If we knew the little losses,
Sorely grievous day by day,
Would we then so often chide
For his lack of thrift and gain—
Leaving on his heart a shadow,
Leaving on our lives a stain?

If we knew the clouds above us,
Held by gentle blessings there,
Would we turn away all trembling
In our blind and weak despair?
Would we shrink from little shadows
Lying on the dewy grass,
While 'tis only birds of Eden,
Just in mercy flying past?

If we knew the silent story
Quivering through the heart of pain,
Would our womanhood dare doom them
Back to haunts of guilt again?
Life hath many a tangled crossing,
Joy hath many a break of woe,
And the cheeks tear-washed are whitest;
This the blessed angels know.

Let us reach into our bosoms
For the key to other lives,
And with love toward erring nature,
Cherish good that still survives;
So that, when our disrobing spirits
Soar to realms of light again,
We may say, "Dear Father, judge us
As we judge our fellow-men."

AGRICULTURE AT NEW HAVEN.

Arrangements have been made to continue the *Yale Agricultural Lectures* at New Haven this winter, and they are to commence in February next. Among the gentlemen who are to take part in them, are—

On *Pomology* and kindred subjects, Messrs. WILDER, GRANT, BARRY and PARSONS.

On *Farm Crops, Manures*, &c., Messrs. QUINCY, BARTLETT, FRENCH and TUCKER.

On *Science*, Messrs. SILLIMAN, JOHNSON, EATON and DADD.

On *Domestic Animals*, Messrs. MORRIS, HOWARD and DICKINSON.

During the last week of the course, four lectures will be given on the *subjugation* and *education* of the Horse, accompanied with demonstrations upon the living animal.

The course will commence February 5, and continue through the month. Three lectures will be given each day, and the intervals of time occupied with discussions. Persons desiring more information than the above gives, may obtain it by addressing Professor JOHN A. PORTER, of New Haven, Conn.

PREPARING BEEF FOR DRYING.

Will you inform me the "modus operandi" of preparing beef, for drying.

Jonesville, Mich. YOUNG HOUSEKEEPER.

We are not aware that there is any specific mode for accomplishing the object concerning which "Young Housekeeper" desires information, as each individual usually consults his or her own taste in the premises. We have had dried beef, which was pronounced excellent, prepared as follows:—Dissolve sufficient salt in water to barely float a potato or egg, heat to boiling point, and skim off all the scum which comes to the surface, add two ounces of saltpetre and two quarts of sugar-house syrup, then set away to cool. When cold, pour over the beef (see that you have plenty of brine to cover,) and let it remain until thoroughly cured,—two to three weeks (according to the size of the pieces,) will be necessary. Take out the meat, let it drain, then hang up in any dry place. If a smoky flavor is desired, smoke in same manner as you would hams or shoulders. The quantities given above are calculated for 100 pounds of beef.

In addition to the foregoing we give the following extracts from previous volumes of the *Rural* and from other sources:

In the *Rural* of Dec. 19th, 1857, "N." gives the following method of curing beef, hams and venison, and says, that after an experience of years, in which he has cured many tons, he knows of nothing better. To every 20 pounds of hams or beef, take 2 ounces of saltpetre, ½ pint molasses, and ½ pint salt. Dissolve and thoroughly mix the ingredients with a quantity of water only sufficient to cover the hams when packed rather loosely. After making the brine, let it stand a little time to settle; pour it on the hams, but keep them from floating in the brine. About once a week take out the hams and re-pack, that every point of the hams may come in contact with brine. In about four weeks they will be cured for smoking, and may be smoked at pleasure. No fear need be entertained that they will become too salt. After smoking they may be replaced in the brine and kept any desired time without injury. If saltpetre is objectionable to any one, leave it out and add more salt and molasses. Beef and venison may be cured in the same way.

R. G. B., in the *Rural* for Dec. 11th, 1858, says: "To corn beef, my method is to cut it up, and pack it in the barrel, and make a brine out of good rock salt, strong enough to bear up an egg, and pour on scalding hot."

The *Ohio Farmer* says:—"To eight gallons of water add two pounds of brown sugar, one quart of molasses, four ounces of saltpetre, and fine salt until it will float an egg."—*Rural New-Yorker.*

GARDENER'S MONTHLY.—We thank you, Mr. "Gardener" for your good opinion of us. But why do you not receive the "*Farmer*," which is regularly mailed to you? These thievings must be checked. It is a small sin to "rob the Exchequer," compared to stealing our children from the mails. We hailed your advent with pleasure, so stated to the world, and have often regaled ourselves upon your savory dishes since.

For the New England Farmer.

WINTERING BEES.

MESSRS. EDITORS:—Having made some observations on the habits of bees, and tried various hives, experiments, &c., I propose to give some of my experience. I notice that after a steady, extreme cold winter, people complain that their "bees froze to death, had honey enough, don't understand it." I wish to draw attention to the cause. I wish those who have bees out doors to examine the hives where they are not well ventilated at, or near the top, and see if there is not vapor in them; if there is glass, you will detect it on that. Long, continued cold, congeals this vapor, first on the walls of the hive, next on the outside comb, gradually working towards the bees, as the cold continues, till the bees are surrounded with ice, so that their honey is inaccessible, and the bees starve, unless a thaw relieves them; and then a sudden freeze is still more disastrous, the bees being wet from the water running down on them, and are frozen together in masses.

The picture I have drawn only occurs after long continued cold spells, which occur sometimes in three, five or eight years. The remedy I have found for this, is, sufficient upward ventilation, to let off the vapor, but close the bottom so as not to have a strong current of cold air through the hive. This is laid down by Mr. Quinby, in his "Mysteries of Bee Keeping," and also by L. L. Langstroth on the "Honey Bee," works to which I am much indebted, and probably the two best works in the country on bees.

Bees have usually been wintered out doors with little or no protection, but Quinby and Langstroth both think they can be wintered on much less honey, kept in a dark, dry place, a little below the freezing point. They state that they have wintered swarms on four, five and six pounds of honey. From my experience, I am satisfied it can as well be done as to have them eat from 20 to 30 pounds. Quinby winters in a house built for the purpose, the studding, floor, joists and rafters being boarded on both sides, and filled with tan bark, charcoal dust, or sawdust, and the hives turned bottom-up, with the bottom board raised up, or removed, to give ample ventilation. Langstroth has tried covering with earth on top of the ground with success. I have succeeded well by placing the hives in a dark, dry cellar, bottom up, board off. The bees did not endure the cold after being put out in the spring, as well, I thought, as those that had stood out. There is but little danger of smothering, when there is good upward ventilation; but look well to those that have not, and see that they do not get stopped at the entrance by lice, or dead bees. I found a valuable swarm of an acquaintance nearly gone, from the bees falling against the entrance inside, so as to stop it entirely. Save your bees from "snow blind" on pleasant days, by spreading saw dust, hay, chaff or something, about on the snow where they fly. Where top boxes are used, take them off to keep from mould. C.

New Britain, Ct., 1860.

RED HOT GUNS.—There is no doubt whatever that cast iron long submerged in the sea, will on being exposed to atmospheric air, become hot even unto redness, and sometimes fall to pieces. Such was the case with some iron guns which formed part of the armament of one of the vessels of the Armada, sunk off the Island of Mull, and the cast iron balls with which some of the guns of the "Mary Rose," sunk off Spithead temp. Henry VIII., were loaded. Mr. Wilkinson, in his "Engines of War," remarks, page 242: "It is also an extremely curious fact, that the cast iron gratings which have been long immersed in the porter backs or vats of large London breweries, possess the same property of becoming hot on exposure to the atmosphere when the porter is drawn off for the purpose of cleaning them."—*Scientific American.*

For the New England Farmer.

DEFINITION OF WORDS AND TERMS.

MR. EDITOR:—It seems to me that half of our controversies would be ended, and much misunderstanding be prevented, if we should first clearly define the words and technical terms which we use in our papers and periodicals. Half of the prejudice against book-farming, as it is called, is owing to the fact, that the common class of farmers do not fully understand what they read, and have no patience to look out the meaning of the words in a dictionary.

It should be borne in mind, that the great majority of farmers have enjoyed but slender means of education, and some have had little, or none at all, except what they have picked up for themselves, "here a little and there a little." When, therefore, in reading an article on the different kinds of soil, written perhaps by one of our best writers, they happen to meet with such words as *argillaceous*, *calcareous*, *silicious*, &c., without one word of explanation, they are puzzled, embarrassed and vexed. So, too, in reading a description of the different kinds of plants, when they meet with an article unnecessarily encumbered with botanical terms and foreign idioms; or, in reading an article on any other subject, abounding in words and phrases derived from other languages, they are greatly offended and disgusted.

The object of agricultural books and papers is, in a plain way, and in the simplest language possible, to lay before practical farmers practical results, to inform them of what has been done by others. It is to describe the methods of cultivation which have been successfully practiced by others, and to encourage improvements in all. It is to make all farmers understand their business thoroughly, and to lead them to cultivate the earth more successfully and profitably.

But when books and periodicals, intended to convey instruction to the common class of readers, abound in obscure words, technical terms and foreign idioms, they not only defeat the object for which they were written, but they create a strong and inveterate prejudice against all book knowledge. "Why," say they, "does not a man write, as he talks, in plain common sense language, so that we can understand his meaning, and not make such a fool of himself? If he has any thing to say, why does he not say it, and have done with it, and not attempt to show off his learning with such a rigmarole of words? If he knows more than we do, or if he thinks he does; if he has had better advantages and more experience

than we; if he feels himself able to enlighten and instruct us, he must come down to us, and adapt his remarks to our capacities, so that we can understand him."

I hope I have not been misunderstood in the foregoing remarks. They are not intended to be hypercritical or censorious; nor are they aimed at any particular writer in your interesting and useful paper; but they are intended to convey a gentle hint to all the writers in the *New England Farmer*, not only to aim at simplicity and perspicuity in the use of language, but to avoid, as much as possible, the use of technical terms and foreign idioms, since the words in our own language are so simple, so significant, and so expressive. If any writer is compelled to use technical terms and foreign idioms, let him define them as he proceeds, because it is very inconvenient to hold a newspaper in one hand, and a dictionary in the other. JOHN GOLDSBURY.

Warwick, December, 1860.

For the New England Farmer.

THE DELAWARE GRAPE.

MR. EDITOR:—A week or two since I sat down to my writing-table, to give you, as is usual with me at this time of the year, a little sketch of our agricultural products in this county. But on second thought I resolved to defer my communication until I should arrive in Ohio, and I am very glad now that I did so, as I find myself most favorably situated to gain some facts on a topic which has interested your readers in New England. You will perceive by the postmark, that I am in the place where the Delaware grape originated, and as many of my neighbors at home are procuring the grape, and others doubtful whether to do so or not, waiting till it shall have been more fully tested, I take great pleasure in imparting all the facts which I can glean upon the subject.

Mr. G. W. CAMPBELL and Mr. THOMPSON, of this place, have been among the most active in circulating and growing this grape. I have been spending a few days in the family of the former, and he has, with great patience and kindness, answered all the numerous questions which an inquisitive Yankee, who does not like humbugging, might wish to make.

Mr. C. obtained his grapes from the original vines, which are still growing about three miles from this place, on the Sciota river, where they were first planted when brought from New Jersey, about twenty years ago. The vines were brought by a Mr. Harford, not a German, and one vine planted in his garden, and another in that of his neighbor, Mr. Heath. There they may still be seen.

These parties believed the Delaware to be of foreign origin, but they knew nothing certainly of the matter.

Mr. Campbell says: "I have investigated the matter carefully, and believe it to be either an accidental seedling from a native American grape, or a hybrid from an American crossed by a foreign variety. The latter supposition seems to me most probable, and I have been for some years engaged in a carefully conducted series of hybridizing experiments, with a view to test its agency in producing new varieties, and in ameliorating the quality of older ones." A very stong argument in favor of its native origin is the fact that seedlings from it have borne fruit with a hard pulp and a decidedly *foxy* aroma and odor.

When Mr. Longworth first received this vine, he thought it was the *Red Traininer* a foreign grape, and many orders for "Delaware," in various parts of the country, were filled, and honestly so no doubt, by nurserymen with vines of the Traininer.

This has, no doubt, caused much of the confusion and deception (so called) with this grape. Mr. Longworth altered his mind after further investigation. And now, Mr. Editor, I know what some hundreds of your readers in Vermont are asking, about this grape. "Is it a good table grape?" and next, "Is it hardy, and suited to our climate?"

What we wish is a grape that we will not be under the necessity of protecting.

As to the eatable qualities of the Delaware, I believe there is not a dissenting voice among those who have fruited the genuine vine. It is pronounced superior even to our foreign grapes in richness of flavor, and as a table grape is far ahead of any American variety.

As to its hardiness, there is now near the window where I write, a vine, now seven years old, that withstood the winter of 1855–6, without protection, when the thermometer went 28° below zero, coming out fresh and bright in the spring. This and the Logan were the only vines among a great variety in the same garden that were not injured by that severe winter.

As near as I can ascertain, there is no grape so well adapted to New England and so worthy of universal cultivation. It has one other recommendation, that of being a very superior wine grape. On this subject I may not personally be a competent judge, but I cannot be mistaken as to its "boquet," which is most exquisite, and far surpassing all our ordinary wines. That which I drank was the pure juice of the grape, without the addition of any sugar, and was much superior to any of the other native wines, a number of which were tested at the same time.

Since I commenced this article, I find that this grape has received the commendation of the Cincinnati Committee on Grapes. They say "it ripens three weeks earlier than the Catawba, stands spring frosts better, the grapes never rot, and it is healthier and hardier."

Now, Mr. Editor, I have no Delaware grapes to sell, (I wish I had.) My one vine, originally from this place, stood last winter well, and made a good growth last summer. Since coming here and seeing for myself the good qualities of the grape, I would not part with it for five times its marketable value, and I wish it could be universally cultivated in New England; but I would advise those who wish to procure one, to be careful to obtain the genuine, as there have been spurious vines sold under that name.

The "Logan," to which I have referred as being very hardy, is another, attracting some attention. I have obtained the following facts which may be of use. The fruit of the Logan was first exhibited before the Mass. Horticultural Society by Mr. Campbell, of Delaware, O., in the fall of 1837, when it received favorable notice. The following

year it was placed on the list of "promising well," by the American Pomological Society, at New York city. It is a purple or black grape, not unlike the Isabella in appearance, but quite distinct from that variety in foliage and the quality of its fruit. It is more sprightly and vinous than the Isabella, and, having a rich, dark colored juice, would probably make good red wine. It is vigorous and hardy, requiring no protection, during the severest winters. It ripens three weeks earlier than the Isabella, and on this account would be valuable for the northern section of New England, where the Isabella will not ripen.

I could write you much more upon the grape culture, and of some interesting experiments in hybridizing, but my article is already long enough.

I have something, too, to say to the "Farmer's Daughter," who has propounded me two questions. I mean to answer them, hoping in the meanwhile she will have a little patience with me.

Delaware, Ohio, Jan., 1861. A. E. PORTER.

For the New England Farmer.

DESIGNS FOR BUILDINGS.

MR. EDITOR:—I am not an architect myself, neither do I wish to be a critic, but when I see the plan of a building laid down, I always like to follow it out in my mind, to see how it would look when finished. In the plan before me, given in the *N. E. Farmer*, 22d inst., I find a difficulty in reconciling "its whole with all its parts." Perhaps a little explanation would set me all right. Now the parlor, No. 3, 14 feet, the vestibule, No. 2, 6 feet, and the dining-room, No. 5, 14 feet, constituting the front part of the house, would be 34 feet. If this is to be the length of the house, and let the width go back so as to cover No. 4, and part of No. 6, leaving the balance, together with the piazza, No. 8, as outside attachments, then we have it 30 by 34, instead of 30 by 36 feet, as first proposed. But if the rooms are intended to be so many feet in the clear, then the thickness of the four walls might make up the other two feet in the length; but on that supposition, the width having three walls, would require to be 31½ feet. Then if the length is reckoned the other way, including No. 8, and the whole of No. 6, and allowing 4 feet for the length of the passage between No. 6 and No. 5, we have 34 by 36. It seems to me there must be an inconsistency in it somewhere; that a man undertaking to build after this pattern, would find himself involved in difficulty.

It is not so important that the drawing be perfect, though in any diagram it is pleasing to see each part represented in its true proportion; but it is particularly desirable that the calculation be scrupulously correct. H.

Fairhaven, Vt., Dec. 29, 1860.

REMARKS.—If the designs we give cannot be carried out into actual dwellings for us to live in, they are but meretricious ornaments, scarcely paying for the room they occupy. We have no doubt but Mr. HARNEY, the designer, can give working plans of his designs that will prove to be correct to the "ninth part of a hair." But he is not immaculate—may have made a mistake, and will be glad to show "H.," just where it is. "H." will please accept our thanks for his kind criticism.

TELLING THE BEES.*

BY J. G. WHITTIER.

Here is the place; right over the hill
Runs the path I took;
You can see the gap in the old wall still,
And the stepping-stones in the shallow brook.

There is the house, with the gate red-barred,
And the poplars tall;
And the barn's brown length, and the cattle-yard,
And the white horns tossing above the wall

There are the bee-hives ranged in the sun;
And down by the brink
Of the brook are her poor flowers, weed o'errun,
Pansy and daffodil, rose and pink.

A year has gone, as the tortoise goes,
Heavy and slow;
And the same rose blows, and the same sun glows,
And the same brook sings of a year ago.

There's the same sweet clover-smell in the breeze;
And the June sun warm
Tangles his wings of fire in the trees,
Setting, as then, over Fernside farm.

I mind me how with a lover's care
From my Sunday coat
I brushed off the burs, and smoothed my hair,
And cooled at the brook-side my brow and throat.

Since we parted, a month had passed—
To love, a year;
Down through the beeches I looked at last
On the little red gate and the well-sweep near.

I can see it all now—the slantwise rain
Of light through the leaves,
The sundown's blaze on her window-pane;
The bloom of her roses under the eaves.

Just the same a month before—
The house and the trees,
The barn's brown gable, the vine by the door—
Nothing changed but the hives of bees.

Before them, under the garden wall,
Forward and back,
Went drearily singing the chore-girl small,
Draping each hive with a shred of black.

Trembling, I listened: the summer sun
Had the chill of snow;
For I knew she was telling the bees of one
Gone on the journey we all must go!

Then I said, "My Mary weeps
For the dead to-day:
Haply her blind old grandsire sleeps
The fret and the pain of his age away."

But her dog whined low; on the doorway sill,
With his cane to his chin,
The old man sat; and the chore-girl still
Sung to the bees stealing out and in.

And the song she was singing ever since
In my ear sounds on:
"Stay at home, pretty bees, fly not hence!
Mistress Mary is dead and gone!"

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* A remarkable custom, brought from the old century, formerly prevailed in the rural districts of New England. On the death of a member of the family, the bees were at once informed of the event, and their hives dressed in mourning. The ceremonial was supposed to be necessary to prevent the swarms from leaving their hives and seeking a new home.

EXTRACTS AND REPLIES.

DO FROGS EAT BEES?

In the hot weather, last summer, I raised a hive containing bees about three-fourths of an inch from the bottom board, so as to give them more air. One evening early in autumn, when passing the hive, I accidentally espied a common green frog on the board near the hive. The query arose at once, can he be after bees? Upon looking around I found several others near; and here I will say I do not recollect ever to have seen the frogs so plenty at a distance from the water, as they were in this vicinity last summer, owing, probably, to the wet season.

But to my story. The next evening I went to the hive after dark, and found the frogs there again. One was close to the edge of the hive, and when a bee which acted as sentinel came near, the frog made a slight stretching motion, and then remained quiet until another came along, when the motion was repeated. I then drove the reptile away, and lowered the hive to the bottom board. In a few minutes I saw two frogs creeping towards the hive in a very cautious manner, but as the bees were secure, I left them.

The following evening the frog placed himself at the entrance of the hive, as if determined to devour every unlucky worker that was out in the twilight.

I have never been in the habit of destroying the life of beast, bird or reptile, without being well satisfied that the injury done was in excess of the benefits bestowed. I am fully convinced that toads are very beneficial in a garden, and I have always considered frogs entirely harmless, therefore I never killed one intentionally. But my faith in their innocence is somewhat shaken. It may be that those frogs were in search of moths and other insects instead of bees. I think, however, if the operation is repeated next summer, I shall make a *post mortem* examination of at least one frog's carcass.

In the meantime, I hope others will give their opinions, founded upon facts. If frogs are really guilty, let them be condemned; if not, let their innocence be proclaimed. L. VARNEY.

Bloomfield, C. W., 1860.

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FENCE POSTS IN HEAVING SOILS.

In the monthly *Farmer* for December I noticed several articles from correspondents about setting fence posts in heaving soils; one of which recommended having them sufficiently long to reach below the frost; another recommended filling a considerable space around them with small stones, and a third to fill around them with gravel. These clayey soils in which it is found so difficult to make fence posts stand are among the very best in the country; and the difficulty of making any fences but the zig-zag stand upon them is one of the greatest drawbacks to their cultivation.

One of the best farms in my own county has a large extent of this kind of land, and a few years since the owner getting tired of "wavy lines" for fences determined to try straight ones; and to prevent the posts from rising, set them full four feet in the ground. In about two years his fence was high enough to admit his calves to pass under it, about the third year his yearlings, and at the present time I am informed his cows can do the same with little inconvenience.

In my own opinion the whole system of setting posts in the ground is generally a bad one. Fences can be built without the zigzag, so that the posts will not only remain where they are put, but will outlast the board.

What would be thought of the farmer who should set the post of his house or his barn in the sand or in the mud, or in clay, even if he filled around them small stones or gravel?

The durability of our fences is certainly not of less importance than of our barns and houses. And no farmer should be satisfied with a post and board fence that will not keep its position on the worst heaving soil, and last at least thirty years.

CHARLES R. SMITH.

East Haverhill, N. H., 1860.

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RECLAIMING GRASS LANDS.

"A Subscriber" wishes to know how meadow land may be reclaimed? And you, Mr. Editor, have truly answered, that the ditch, plow and manure will reclaim it. But what if the manure is not to be had? My experience is to go ahead without the manure, and is justified by an experiment on a piece of wet meadow, the muck being from two to five inches deep, with a stiff clay subsoil. This piece was plowed in August, 1859, and made as smooth as the plow and hoe would make it. Next a light harrow was used until the soil was well pulverized. I then sowed on herdsgrass seed at the rate of three pecks per acre. The land was then harrowed, the sods turned down, and roller passed over it, making it quite smooth. The result was a heavy crop of grass, certainly at the rate of two tons per acre. I think that fowlmeadow or some other meadow grasses might be more profitable, in the end. The experiment has led me to plow several acres more of land in the same condition, and I hope with like results. SOLON R. BERRY.

Thetford, Vt., Dec., 1860.

REMARKS.—This is certainly encouraging. There are many instances where it is advisable to plow seed without manuring. Some grass lands are not poor, but, for some cause are "bound out," the grasses have lost their roots. Upon plowing and reseeding such lands, fine crops are sometimes realized at once.

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TIME FOR CUTTING TIMBER.

I noticed in your paper of last week quite a long article on the subject of cutting timber, the best time to do it, &c. I have had more or less experience for many years in cutting wood and timber, and making fence, so that what I have to say on the subject will spring from experience.

About twenty-five years ago, I set a man to chopping wood some time in the month of June, and it so happened that he only cut one tree, a chestnut, about a foot in diameter, and split and piled the same. I drew it in the winter after, and it dried the best and brightest of any wood I ever cut. I have cut some thousands of cords since. There is one objection to cutting wood between the time of the sap having passed up into the branches and back again into the roots. One year

I cut several cords early in September, which has not sprouted until this day, while wood cut on the same slope in winter sent up sprouts five and six feet the first year after being cut. My method of managing woodland is to thin out all the small trees after they get to be of considerable size, [What size is considerable? What diameter? Ed. ?] and leave the main ones to grow; by this process I find the timber makes very fast, and when I cut clean, if there are any thrifty trees I leave them until the wood is ready to cut again. By this mode of procedure I get large and tall timber. For instance, twenty or twenty-five years ago, I left on an acre thirty or forty chestnut trees from six to eight inches through; and they are now from fifty to seventy feet high, and from twenty to thirty inches in diameter. Twenty-one years ago I set about twenty-five rods of board and post fence. I cut the posts and peeled them the year before. I set the fence as soon as they were perfectly dry, the butt ends all in the ground. The posts were from six to eight inches in diameter and are nearly all standing now. The soil where the fence was built is gravel.

SPENCER BYINGTON.

Stockbridge, Jan., 1861.

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HOW TO KILL VERMIN ON CATTLE.

Having noticed articles in the leading agricultural journals in relation to killing lice on cattle, many of which I have tried with little effect, I propose to add another to the list for the benefit of those not already acquainted with it, and which I have tried with entire satisfactory results, in every instance where I have used it. Take poke root, sometimes called *blue dragon* or *hellebore*, and boil enough to get a very strong tea or wash, and apply it as a wash thoroughly, and it will surely kill every one of the vermin, and without the least detriment to cattle. One good application is sufficient. SILAS MASON.

Hartwellville, Vt.

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THE CONCORD GRAPE.

Can the Concord grape be relied upon in this latitude (44½°) without winter protection? I am anxious to raise grapes, and I want the best, if I can find them? L. VARNEY.

Bloomfield, C. W., 12th Mo., 6th, 1860.

REMARKS.—We do not think you would be able to cultivate the Concord grape vine in your locality without winter protection, and unless vegetation is very rapid during the summer months, the fruit would not ripen even if the vines came through the winter in perfection. Still, if you raise Indian corn in your climate, you may get the Concord grape.

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KING PHILIP CORN.

Have you the King Philip corn, and the improved King Philip corn? What is the price of each, per bushel, and for smaller quantities? What is the difference in the time of ripening, and in the yield? BENJAMIN DOE.

New Market, N. H., Dec., 1860.

REMARKS.—The corn inquired for is usually for sale at the seed stores for about $2 per bushel—perhaps at the rate of $2,50 or $3 in small quantities. We cannot answer the second question.

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CATTLE DISEASE.

How is the cattle disease? I have been led to believe that you have not had any fresh cases since July last, as you are silent on the subject in your monthly. But other indications induce me to suppose that new cases occurred last fall and this winter. Please give us the facts as you know them. T. H. COLLINS.

Locust Lawn, New Albany, Ind., Jan., 1860.

REMARKS.—There were several new cases of the "cattle disease," last fall, and as soon as they were discovered the sick animals were either isolated or immediately killed. The decided action of the Commissioners undoubtedly checked the disease and prevented its spreading over the country. There are now, happily, no recent cases of the disease in our knowledge.

—

PLANTING POTATOES IN THE FALL.

I would inquire through the *Farmer* if any one has planted potatoes in the fall, and covered them with straw or sea drift, with success? I think I saw something to that effect in some paper. N. Y. HALL.

Deering, N. H., Dec., 1860.

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HORSE CART.

Can you give a good drawing or description for a horse cart? CHESTER BAKER.

Amherst, Mass., 1860.

REMARKS.—When we can obtain a good illustration of a *good* horse cart, we will give it in the *Farmer*.

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A FINE CROP OF OATS AND WHEAT.

Mr. WILLIAM HANSON, of Barre, Vt., raised the past season, 1450 bushels of oats on 23 acres, twenty acres of which was green sward. He also raised 60 bushels of wheat on 1½ acres.

Barre, Vt., Dec., 1860.

For the New England Farmer.

A PROLIFIC BORER.

The 18th of the 6th month, while walking near an elder-bush in one corner of my garden, I discovered signs of a borer near a thrifty sprout of this year's growth. On examination, I found one had entered about fifteen inches from the ground, and had devoured the pith upwards about thirteen inches, where I found him. The insect was an inch and a quarter long, of a greenish color, spotted with black. It had 16 legs—6 black, pointed ones near the head, and 10 posterior ones of the color of the body, which appeared to be concave on the under side. It could crawl backwards or forwards equally well. I placed a piece of the bush with the worm in it, under a glass, and in about two weeks found it dead, but it had left in the piece of wood thirty-six eggs.

Was this the apple tree borer?

Bloomfield, C. W., 1860. L. VARNEY.

HORSES, AND THEIR DISEASES.

Crib Biting—Farcy—Hide Bound—Roaring—Ring Bone.

EVERY farmer is interested in the horse,—and not only himself, for when a good, faithful horse has long been upon the farm, he comes to be regarded almost as one of the family, at least, as indispensable to its comfort in many ways. When attacked by disease, and the poor animal is suffering, the sympathy of the whole household is excited, and all are anxious to do something to alleviate his pain as well as to restore him to service. We propose, therefore, in the course of this year to mention some of the diseases to which the horse is liable, and some rational remedies for them. It will not be in our power to say that all the diseases will be accurately described, or that the remedies are the best that may be prescribed,—but we shall select from the best sources, and would invite those familiar with the diseases which so often disable the noble animal, to aid us in the effort to throw light upon the subject.

We introduce below, a brief description of several diseases, with the treatment for each, all in plain, common sense English, from a new work by EDWARD MAYHEW, called "*The Illustrated Horse Doctor*," and recently published in London. The reader will see in these extracts how briefly and intelligibly he presents the symptoms and treatment of some of the diseases which destroy the usefulness of the horse.

CRIB BITING.

Cause.—Sameness of food, and unhealthy stables or indigestion.

Symptoms.—Placing their upper incisors against some support, and, with some effort, emitting a small portion of gas.

Treatment.—Place a lump of rock-salt in the manger; if that is not successful, add a lump of chalk. Then damp the food and sprinkle magnesia upon it; and mingle a handful of ground oak bark, with each feed of corn. Purify the ventilation of the stables before these remedies are applied.

FARCY.

Cause.—Excessive labor, poor food and bad lodging, operating upon old age.

Symptoms.—It is, at first, inflammation of the superficial absorbents. Lumps appear on various parts. If these lumps are opened, healthy matter is released; but the place soon becomes a foul ulcer, from which bunches of fungoid granulations sprout. From the lumps may be traced little cords leading to other swellings. The appetite fails; or else it is voracious. Matter may be squeezed through the skin. Thirst is torturing. At length glanders break forth and the animal dies. There is a smaller kind of farcy, called button farcy—the smaller sort is the more virulent of the two.

Cure.—There is no known cure for the disease.

HIDE BOUND.

Cause.—Neglect, or turning into a straw or stable yard for the winter.

Treatment.—Liberal food, clean lodgings, soft bed, healthy exercise and good grooming. Administer, daily, two drinks, composed of—liquor arsenicalis, half an ounce; tincture of muriate of iron, one ounce; water one pint. Mix, and give as one dose.

ROARING.

Cause.—The bearing rein; the folly of fashion.

Symptoms.—A noise made at each inspiration.

Treatment.—No remedy. The cabman's pad is the only alleviation; that conceals and does not cure the disease.

RING BONE.

Cause.—Dragging heavy loads up steep hills.

Symptoms.—A roughness of hair on the pastern, and a bulging forth of the hoof. A want of power to flex the pastern. An inability to bring the sole to the ground, only upon an even surface. Loss of power and injury to utility.

Treatment.—In the first stages apply poultices, with one drachm of camphor and of opium. Afterwards rub with iodide of lead, one ounce, simple ointment, eight ounces. Continue treatment for a fortnight, and after all active symptoms have subsided, allow liberal food and rest; work gently when labor is resumed.

For the New England Farmer.

SOCIETY REPORTS---SUCCESSION OF FOREST TREES.

The Transactions of the Middlesex Agricultural Society for the year 1860 is a well prepared document, and contains valuable information to the farmer. I notice, however, one important omission, which, in common with many of the reports of county societies, detracts much from its interest and value. It is shortly this: In not giving full statements with regard to crops entered for premiums. What we want to know is, the most successful methods of culture, with the cost attending it, the nature of the soil, its previous use, the kind of seed, the amount sowed, and the manure applied. Without such statement, the reader only knows that A. B. raised twenty-five bushels of wheat to the acre, and nothing more.

The address of Mr. Thoreau is a very interesting one, particularly that portion which explains the process of nature, by which when a decayed pine wood is cut down, oaks and other hard woods may at once take its place. In other words, how it is that, without the aid of man, a rotation of crops in the shape of trees takes place. This is done, as he truly says, by the winds, in some cases, by the birds and by animals in others. The squirrel is a great tree-planter, the oak, the walnut and the beech are mostly planted by him. They are brought from long distances and are

buried in the ground for winter use; some are forgotten or are not wanted and they vegetate the following spring. He is, however, mistaken in supposing the planting to be carried on annually of necessity, or that "the oldest seedlings annually die." The plants come up and throw out from two to six leaves, and continue to do so from year to year, until the pines decay or are removed, and the light and air come to them, when they at once commence a vigorous growth. I have marked within fifteen years, hundreds of oaks in their dormant state, and have never lost sight of them. There they are, just as when I first discovered them. Others I have opened to the light and air, by clearing away the pines which shadowed them, and they are vigorously taking their places. Providence has wisely made this provision for the future. These plantations are existing all around us, with no oaks within a large circuit—they have been all sacrificed years ago, yet the clearing up of a pine grove will reveal the careful providence of nature. If no oak has *ever* grown in a district, none will grow, for want of seed, but once planted and germinated, it is never lost.

The squirrel is equally efficient in planting the pine seed as the acorn. The cone of a pine contains from thirty to sixty sound germinating seed. The squirrel, with his sharp teeth, cuts off the little flaps which hold them and pouches them, carrying them to his retreat, where they are lightly buried. A common chipmunk will take in his pouches or cheeks more than a hundred seeds at a time.

It is not only the pine that acts as a sentry over the oak, preparing for its future growth by the annual decay of its spikelets. The birch, to some extent, performs the same office. If you carefully look through what appears to be an entire birch cover, you will frequently find the young oaks beneath abiding the period of its more rapid decay.

R. J. F.

BUCKWHEAT.

This grain, which possesses a high value for a variety of purposes, should be sown between the fifteenth of June and the first of July. The soils best adapted to buckwheat, are those of a silicious or sandy texture. The frequent failures which have attended the cultivation of this grain, are attributable, in a majority of cases, to lack of attention in managing it. The soil should not only be rich in soluble extractive matters capable of yielding aliment to the plants, but of such a texture as to admit of its being reclaimed by the action of the harrow and the plow to a very fine tilth. Purity of seed, also, is another important consideration. It should be of good quality as to fullness and roundness, and not above three pecks allowed to the acre. The application of the roller to the surface after sowing the seed, will be beneficial, as it tends not only to compress the soil around the seeds, but to facilitate the labor of harvesting by producing a level surface. This is important, as it enables the mower to carry his scythe near the roots of the stalks, and to obviate the loss of seed which a more elevated stroke would shatter out. Clayey soils, unless thoroughly drained and pulverized, are unsuited to this crop. The soil congenial to this crop is upland green sward, inclining to sand, plowed in June.

LEGISLATIVE AGRICULTURAL SOCIETY.

The first meeting of the Legislative Agricultural Society was held in the Representatives' Hall at the State House, on Monday evening, Jan. 7, which was well attended.

The assemblage was called to order by Col. STONE, of Dedham, and SIMON BROWN, editor of the *New England Farmer*, was unanimously elected President of the evening.

On taking the chair, Mr. Brown spoke briefly of the importance of these meetings, and of the desire of the people of the Commonwealth to learn, through the papers, what is said at them. He spoke, also, of the necessity that every farmer should avail himself of the real improvements in agricultural implements and machinery, so that he may keep progress with other industrial pursuits in obtaining his products cheaply. He said that he believed farming to be the most profitable pursuit ever engaged in by man, when the true meaning of the word *profitable* is considered, and that it is as honorable as any other. He made several interesting illustrations, and closed by appealing to the members of the Legislature to sustain these meetings by their presence and teachings.

On motion of Col. STONE, Mr. MASON, of Dartmouth, was chosen Secretary.

A committee of seven, consisting of Messrs. FREEMAN WALKER, of North Brookfield, LANSING J. COLE, of Cheshire, ELIPHALET STONE, of Dedham, JOSIAH WHITE, of Petersham, D. ORLANDO FISKE, of Shelburne, DAVID H. MERRIAM, of Fitchburg, and SILAS T. SOULE, of Wareham, were appointed to furnish subjects for discussion for future meetings.

Mr. WHITE, of Petersham, being called on, said, that of the utility and importance of these meetings there could be no doubt, and he trusted this was the first of a series to be held by the Legislature that would benefit every one who attended them. He always felt bound to give all the aid he could to advance the interests of the agriculturist, and he thought in the short time left, the time would be well devoted to the subject of *Improvements in Agricultural Implements*, expressing the opinion that these had been brought about by the farmer's success.

Col. STONE complimented the previous speaker, and said that in his opinion these meetings were better conducted without restraint, and he hoped to hear all take part in the discussions.

Mr. MERRIAM, of Fitchburg, said that a year ago last summer he raised an excellent crop of corn from the virgin soil, and this was by work alone. He plowed the land four feet deep, using a Michigan plow, and drained it, putting on guano, partly in the hill and the other part sowed in. He spoke in high terms of praise of Bates' machine to pull out stones, that he had used, and said he was desirous of seeing it come into more general use.

Mr. FISKE, of Shelburne, said he thought the whole community should be interested in the subject of agriculture, and he hoped these meetings would have a good influence on the sons and daughters of Massachusetts. The idea prevailed that farming did not pay, but it was high time this fallacy was exposed, as every man who has devoted his attention to farming could testify that no pursuit was more likely to pay well for the time and labor bestowed upon it. He also spoke of the rock-lifting machines, and was desirous that they should prepare the land for mowing machines, and he hoped neighbors would club together, so as to bring them within the reach of all.

Mr. WARD, of Fairhaven, said he had not done anything in farming for a number of years, but his mind had nevertheless been drawn to the subject of agriculture. He thought every State should be circumscribed in its products. England, said he, is a manufacturing country, and in this line were their own producers; we ought to be an agricultural country, and to be so the greatest encouragement should be given to the farmer. He spoke of his mode of raising onions, saying that he hoed seven times, taking every other row, and hoeing nearly up to the adjoining row, thus giving the ground nearly as good as fourteen hoeings.

Mr. SEARS, of Yarmouth, said he did not belong to an agricultural district, but he detested the idea of young men and women going away from the farm on the ground that it was not genteel. He considered the idea of "skinning" the soil false, and hoped to see the process stopped.

Mr. BENNETT, of Hubbardston, said he was not engaged in farming, but he had taken interest in the statistics of the State in relation to it. From these he quoted at some length, showing that the returns from Worcester county showed a larger per centage than any other county in the Commonwealth. From close observation he had come to the conclusion that the larger amount of cultivation should be devoted to the best soil. He also said longevity was largely in favor of farmers.

On motion of Col. WHITE, the subject for discussion at the next meeting was decided to be, "*The winter management of farm stock.*" Governor ANDREW is expected to preside.

FACTS ABOUT CHINA.

The Emperor of China, Hienfung, is the seventh of the reigning dynasty of the Tsings, which succeeded in 1644 to that of the Mings. The present Emperor is the 244th, dating back 4702 years. His reign commenced on the 26th February, 1850. Hienfung is not his actual name, but a sort of official name adopted by him as reigning sovereign, and signifies Perfect Felicity. The name of his father, Tankwang, signified Splendor of Reason. The population of China was estimated in 1849 at about 415 millions of souls. The public functionaries (Mandarins) are divided into nine classes, of which each is again subdivided into two, and the civil authorities take precedence of the military. Authentic information respecting the finances and the army is wanting. The military organization differs essentially from that of European nations. Each governor of provinces has his own regiment of Chinese, but they rarely engage in action. There are Manchoux who serve only as garrison troops. In case of war, a militia force is raised, composed principally of volunteers, who hope to derive certain advantages, or obtain the rank of Mandarin. There is a war department, but no officers that are superior to the governors of provinces. When there is question of war, as of late to combat the rebels at Nanking, the Minister of War names a commander-in-chief, to whom all the troops are subject. There is no imperial navy; the admirals are functionaries of the provinces. The Chinese army, including the reserve, may be estimated at 1,500,000 men, of whom 700,000 are Chinese, 300,000 Mongols, and 500,000 Manchoux. The fleet consists of 826 vessels and 58,637 men, commanded by two admirals.

MIDDLESEX AGRICULTURAL SOCIETY. — We have before us the report of the last year's doings of the Society. The Address of Mr. THOREAU, "*On the Succession of Forest Trees,*" is given in full. We have spoken of this before, and given extracts from it. It contains, also, reports on *Sheep, Poultry, Grapes, Vegetables, Bread,* and *Plowing with Single Teams,* extracts from which we hope to find room for hereafter. There are several other short reports of no general interest. The officers of the Society for the ensuing year are,—

GEORGE O. BRASTOW, *President.*
ANDREW WELLINGTON, E. W. BULL, } *Vice Presidents.*
JOHN B. MOORE, *Secretary.*
RICHARD BARRETT, *Treasurer.*

FLOWAGES.—We are informed, by letter and otherwise, that the proprietors of the dam across the Concord River at North Billerica, have been busily engaged in obtaining petitions to get the act, passed at the last session of the Legislature, for the removal of this nuisance repealed. They have given public notice of such intention. This pertinacity shows how desperately men cling to power when it is once in their hands. This dam,

in the opinion of the last Legislature, operates as a public calamity, destroying a vast amount of property and spreading desolation and death through one of the most lovely and fertile regions of the State. The people living in the towns bordering on the meadows that are flowed, have battled with this power for forty years, and have not yet been able to receive *a single dollar* for damages, although their grass crop has been annually cut off, and sometimes whole families have been prostrated with sickness occasioned by the malaria arising from the rotting masses of vegetable matter lying upon the meadows.

We also learn that the citizens of Wayland held a town meeting on Monday of last week, in view of the action in this matter. The meeting was a large one, and it unanimously voted to remonstrate against the repeal; the selectmen were authorized to act as agents for the town, with power to employ counsel and do anything else which in their judgment they may deem necessary to secure action under the law of last year.

The citizens of Sudbury, we learn, are to hold a public town meeting in relation to the matter, and the people of all the towns in the Sudbury and Concord River Valley are still determined that this wicked monopoly shall be abated.

CATTLE DISEASE IN SOUTH AFRICA.

Below we give an extract from a letter written from South Africa by the Rev. LEWIS GROUT, to a brother in West Brattleboro', Vt. We hope, however, there will be no necessity for any one to avail himself of the information contained in it.

UMSUNDUZI, SOUTH AFRICA, SEPT. 16, 1860.

DEAR BROTHER:—I see by the papers the same disease which we have had here for six years is now in Massachusetts, making a good deal of commotion, as well it may. Among cattle or cows it is very contagious and fatal. Only about one in twenty-five recovers or escapes, after being once exposed with diseased cattle. The few which recover are not liable to the second attack. The only remedy in this country is inoculation, by which three-fourths, or at least, one-half, are usually saved, about one-quarter dying of inoculation unless the thing is very successfu' In this country those who are obliged to go about with oxen must first inoculate, so also must those who are surrounded by disease, so as not to be obliged to keep the cows from contact with those that have the disease. The mode of inoculating is to make a small puncture or incision in the end of the cow's tail and insert a little of the liquid, or a small bit of flesh, from the lung of an animal which had the disease and died of it, or rather was killed and found to be diseased. Sometimes a thread is drawn through a diseased lung, and then inserted under the skin just so as to be in contact with the blood. In a few days the tail begins to swell; the swelling sometimes goes up the body so as to cause death. The disease does not show itself under five weeks after exposure. The first sign of the disease is hard breathing, with a turning up and contraction of the nose at each inspiration. I should not inoculate until compelled to do so, either by finding that my cattle had been actually exposed, or were sure to be so, though no time should be lost after an actual exposure; otherwise inoculation will do little or no good. If the people will set about stopping the disease in right earnest, they can do so, otherwise it will go through the country. The best season to inoculate is in the spring, when cattle are relaxed, as that helps keep the body open and check inflammation.

LEWIS GROUT.

AGRICULTURAL QUESTIONS.

BY JOHN DIMON, WAKEFIELD, R. I.

MR. EDITOR:—Having decided to spend the remainder of my days on the farm and in the capacity of a farmer—and as it is less expensive to buy the best stock and tools, and to do work in the best manner, and as there are hundreds of young farmers in New England who are in want of a certain kind of agricultural information, I have concluded to send you a string of practical agricultural questions, which I wish you to publish in the monthly *Farmer*, with such answers and remarks as the merits of the case require. And by so doing you will confer a great favor—not only on me, but on others in similar circumstances.

1. What kind of plow do you consider best for a smooth, sandy-loam farm?

REMARKS.—*Plow for a sandy-loam land.*—We should say Holbrook's Universal plow, *stubble* mould-board No. 152, and *green-sward* mould-board No. 122. This stubble plow has a wonderful power of lifting up and disintegrating the soil. We have seen it in use where, if a common-sized man should lie down in the furrow, the next one turned would well nigh cover him over. The sward mould-board is equally effective in breaking up. In skillful hands it may be made to lay the furrow entirely flat, or to give it the slightest lap, if the operator prefers this mode of leaving it.

2. Where land is rather light and cold, and has not been highly manured, how deep should it be plowed to obtain the best crops?

How deep to plow.—Land that has received only shallow plowings for many years should not have the surface turned under deeply at once, unless a large amount of manure is added. The black soil being low down, affords no support to plants early in the season, and as they do not find nourishment in the new soil, they are not matured and the crop is lost. To answer your question directly, we should say that a depth of six inches would be likely to return the best crops on such a soil, where the manuring is to be light. Will you experiment by plowing at different depths, mak-

ing all other things equal, and give us the results?

3. Is it really advantageous, and will it pay, to subsoil land for general crops?

Subsoiling for general crops. — There is no doubt on our mind but that subsoiling on clayey and granitic lands, where crops of wheat, barley, oats and Indian corn are cultivated, would be a profitable practice. It would be one of the processes making up a thorough cultivation, and we believe it is generally admitted now, that to cultivate a less extent of land, and cultivate it well, always secures the most favorable results. Instead of cultivating two acres of heavy land in corn, expending forty-five days' labor and thirty ox-loads of manure upon them, put all the labor and all the manure upon one acre, making *subsoiling* one of the items of culture on the one acre. Give the same time to the one acre that would be given to the two, in hoeing, and exterminating weeds—and we believe an exact account will, in nine cases in ten, show a balance in favor of the *one* acre.

The use of Mapes' subsoil plow in passing between the rows of corn, potatoes, beans, or any of the hoed crops where it can be admitted, is highly advantageous. It moves the ground below, without much disturbance to the surface, and when run between the rows both ways, leaves the field mellow and light, as a root bed for the plants, and the soil in a suitable condition to be greatly benefited by all atmospheric influences.

4. Being confident that much grass seed is annually wasted by not being properly covered in the soil, I wish to inquire the best method of "getting in" the different kinds of seed; both clover and the finer grasses?

Getting in grass seed.—There is much waste in sowing grass seed by hand, as the person having both skill and long practice will be scarcely able to sow a bushel of timothy seed without overseeding in some spots and leaving others without a due portion. If there is wind at the time of sowing it makes the operation still more difficult; a little loss, therefore, at each annual sowing, would soon amount to an aggregate sufficient to purchase the best machine, which would last for generations.

In the monthly *Farmer* for June, 1858, we gave an illustration of *Wells' Seed Sower*, and expressed an opinion of its merits. It costs but $4,00, and its use will save that sum on any well conducted farm in two years, in time and seed. If the proprietor of *Cahoon's Seed Sower* will send us a good illustration of that machine, we shall be glad to publish it in these columns.

After grass seed is sown, it is not a commendable practice to leave it so near the surface as is usually done. It should be harrowed in at least, so that it may get root hold in the soil before the blade appears above ground. A slight brush-harrowing is not sufficient. After harrowing, the brushing should be done by confining white birches, or other saplings, to a piece of joist three by four inches and pass over the field in both ways; and if the team is sufficiently strong, add a little weight to the joist, so as to compress the earth a little; this practice will answer pretty well without the use of the roller. But the roller should be used where it can be conveniently. The observing farmer has noticed that seed comes best, and is the strongest, in the tracks made by the team in harrowing.

5. Will it pay to buy oyster shells at two cents per bushel, three miles from home, to burn for manure?

Oyster shell lime. —We have known oyster shells drawn eight miles by team—when returning from market,—converted into lime and used on exhausted farms with profitable results. The shells were pitched into a corner where two heavy stone walls came together and placed with alternate layers of brush and other cheap wood of the farm and burnt. The proprietor thought he was greatly indebted to this lime in bringing back the farm to a state of fertility. If we should advise, it would be to make trial of the shells, keeping an accurate account of cost, and strictly watching the results.

6. What is the best method of applying ashes to a corn crop?

Ashes for corn.—Forty years ago it was the practice to apply ashes to the hills of corn at the first hoeing, throwing it in among or directly upon the young plants. We cannot see that any one mode of application has decided advantages over another. Ashes are of great value to the crop, and if applied broadcast upon the field before harrowing, or before the first hoeing, the plants will be quite sure to feel their influences before they come to perfection.

7. I want, next spring, some light manure, similar to poudrette, to use in the hill for corn. Something that is strong and easily applied, and something I can manufacture at a less expense than to purchase poudrette from the Lodi Manufacturing Company at about $1,75 per barrel here. How shall I manufacture a home-made poudrette?

Something to manure with in the hill. Our correspondent has taken a proper view of the matter in devising some method of fertilizing corn plants in the hill. In our short seasons, the corn crop often fails to come to maturity for the want of an early and vigorous start in the spring. The tender plant needs something immediately about its roots to push it along and bring out its

broad leaves for atmospheric influences to act upon and perfect it before September frosts occur. A liberal broadcast manuring is not sufficient for this, and so we want something that is cheap and portable, that every farmer may have it to drop into the hill before covering the corn, to impart warmth to the seed, and quicken it into vigorous action.

One way to accomplish this end is this. Collect all the night-soil that can be procured through the summer from time to time, and mix it with fine, old meadow muck and sprinklings of plaster; occasionally pour sink water over it, making it so moist as to become of a pasty consistency, and then work it thoroughly with the back of the hoe, as mortar is worked, so that the night-soil and the muck shall be completely incorporated. Do this three or four times in the course of the summer and autumn, always leaving the heap well covered with loam. If muck cannot be had, use alluvial soil, or the finest loam and sprinklings of plaster. Before freezing weather gather the heap into barrels and place it away from the frost. A handful of this compost in the hill will make *you* laugh, if it does not the corn.

Another way.—Place the roosts for the fowls in such a position that all their droppings can be conveniently reached, and each morning, or three times a week, cover them with fine muck, loam, sand, or plaster. Keep the whole dry, and use half a pint to a hill. If you have this, you need not sigh for guano.

Still another.—Take an old cask, such as a molasses hogshead, mix a bushel of plaster with old muck enough to fill it, and saturate the whole with urine from the barn cellar or from any other source. Continue to pour on the urine freely from day to day, until the escape of ammonia is detected, and then discontinue it. The contents of the hogshead may then be taken out and the operation repeated to any extent desired. In this operation the sulphuric acid in the plaster will combine with and fix the ammonia escaping from the urine, and the mass will be a portable, active and highly fertilizing agent—one that *every* farmer may have.

8. As all farmers are liable to sometimes lose an animal either by age or accident, how can they make a dead carcass most available and profitable for manure?

What to do with a "dead carcass."—A dead horse may be made more valuable than most farmers are aware of. A man has about one pound of ammonia, it is stated, for every fifty pounds of his weight. If the same rate holds good with the horse, one weighing ten hundred would yield twenty pounds of ammonia. We have been taught that this substance is one of the most valuable fertilizers that the farmer has, so that if this particular part were all, the dead horse or ox would be valuable. If the dead animal were cut into pieces, sprinkled freely with plaster or charcoal dust, and the whole mass covered plentifully with meadow mud, at the expiration of a year it might be in condition to be overhauled and incorporated with the muck. The bones should be collected and placed with other bones to be converted into phosphate of lime when enough of them are obtained to make the job a profitable one.

9. What crop is best to help out winter fodder—corn, millet, or roots?

10. Will it pay for farmers to cultivate roots for stock in winter, and if so, what kind of roots will pay best?

Crop to help out winter fodder.—There is nothing more sure, or scarcely anything better, than oats, cut just as the seed is forming, and cured mainly in the cock, under caps. Millet is a good crop, and it may be sown later than oats. We commend the culture of roots, to some extent, on every farm. Most of the work may be done by horse power, and the crop may then be obtained at a cheap and profitable rate. Stock greatly needs some succulent food to go with the dry fodder which comprises the principal part of their winter food. By a little inquiry every farmer may ascertain how to raise Swedes, carrots and mangolds as a profitable winter feeding. This paragraph replies to your 9th and 10th questions.

11. Will it pay for a small farmer to own a mowing machine; say on a farm of twenty-five acres to be mowed?

Mowing Machines.—Yes. A good machine will pay for itself in a few years.

12. What kind of mowing machine is best for a light, smooth farm?

What mowing machine is best? There is no mowing machine out of the dozen we have tried that stands out so pre-eminently above all others as to justify us in saying that it is the best. The Ketchum, Wood, Manny, New England, and we do not doubt, some others, may be used with decided economy on smooth farms.

Now, brother DIMON, having answered your questions candidly, and as fully as space will permit, will you, if the answers do not commend themselves to your views, express them yourself, and send them to us for publication.

ELECTRICITY.—A writer for the *Rural American* says that some of his scientific neighbors have suggested that there may be some connection between the abundant crops of this year, and the abundant electricity manifested in our frequent thunder storms.

For the New England Farmer.

"LABOR IS KING."

MR. FARMER:—

This is a very busy world.
The earth upon its axis twirled
Rolls constant round without cessation,
And never stops for recreation;
E'en steady Sol is in the practice
Of trundling round upon *his* axis,
And winter-solstice-shortened days,
And lengthened nights, and his slant rays,
Scarce bring brief rest and lessened labor
And time for talk with chatty neighbor,
Ere high in heaven he holds his reign,
And sets all things awork again;
While madam Luna, she who whilom,
As one in lunatic asylum
Displays his antics and grimaces,
Made up an endless change of faces,
Gives twice diurnal agitation
To all the watery creation;
So Ocean ceaseless ebbs and flows,
And never rests in calm repose;
The insect of a summer's day,
That lives its hour and dies away,
Spends that brief hour upon the wing,
A busy, buzzing, bustling thing;
And so in earth, in sea and sky,
All things that creep, or swim, or fly,
For food or fun are onward driving,
And after some "chief end" seem striving.

But busy more than all beside,
More restless than the ocean's tide,
Than earth that trundles on its axis,
Or moon which nightly wanes or waxes,
Than insect of a summer's day,
That hums its hour and dies away,—
Is man, creation's lower lord:—
Still, by some ruling passion stirred,
He traverses both land and ocean,
And is the true "perpetual motion."

Then of this busy biped race,
Which finds on earth its dwelling-place,
One of the busiest mortals in it,
With double dose for every minute,
Is he the tiller of that soil
Which yokes together tilth and toil,
And yields the treasures of her breast
Most fully when most freely prest;
By "sweat of face" he earns his living,
And works from Fast-day to Thanksgiving.

Aye, *works*:—let vale and hill-top ring
With pæan-shout,—"LABOR IS KING;
And neither cotton, corn or coin,
That regal honor may purloin,
Or, unpresumptuous, claim to share
The crown which this alone shall wear.
Shall the thing made contemn its maker?
The saw lift up against its shaker?
The axe vainglorious, abuse
And flout the hand that with it hews?
The stream unwise, the fount deride
Whence all its waters are supplied?

LABOR IS KING:—by that ungraced,
Earth were a wild and cheerless waste;—
Not mere brute toil, as 'neath the goad
The ox, unreasoning, drags his load,
But thinking, free, which gives combined
The product of the hand and mind,
Of finest web a brain-work weaves,
Yet in stern conflict never grieves
With life's material ills to jostle
Nor shames to "travel on its muscle;"
Wipes his swart brow anon, thus while he
Unites the *dulce* and *utile*.

LABOR IS KING;—long may he reign
Life, comfort, beauty, grace his train;
The forest bows beneath his stroke,—
Then fair, as when creation woke
On Time's first morn, transformed the scene,
Stretch wide the "fields of living green."
Broadcast in Spring he sows the seed;
Garners earth's stores for winter's need;
He guides the plow, and plies the flail,
With lacteal treasures fills the pail,
With vigorous arm the scythe he swings,
Hard by the bob'link blithsome sings,
The harvests bend where'er he goes,
And deserts blossom as the rose.
He spans the flood, or climbs the steep,
Brings treasures from "the vasty deep;"
His hand unfurls the whitening sail,
And straight the canvass woos the gale;
He guides his bark through every zone,
And all earth's bounties makes his own.
Seeks he a path?—he bows the hills,
Anon the yawning valley fills,
(Or just, perchance, for double sport,
Bores Hoosic *and* the General Court,)
Bridges the stream, with mighty tide
Of twice twelve furlongs stretching wide,
His steed of fire yokes to the train,
Then bids it smoke along the plain,
Far sundered dwellers bringing near,
And time and distance disappear.

Honor to toil; but toil is blest
But as it brings alternate rest;
The shaft with half its force is sent
Sped from the bow that's ne'er unbent;
Sweet is the task the daylight knows,
Because it brings the night's repose,
While turns the tide, with lessened roar
The surf-wave breaks upon the shore;
The hen makes noisy demonstration
After her laying operation,
And cackling sets all hen-creation,
But quiet sits through incubation,—
(Unworthy of her henship's praise
The rhymester cackles *in* his lays;)
The kind command to man from heaven,
Was work for six days, not for seven,
And the first pair unstained by vice,
Had Sabbath rest in Paradise.

And now, with stillness half sublime,
Comes *Nature's* peaceful Sabbath-time;
Beneath its wintry vestment sleeping,
Earth hath no floweret up peeping,
No bursting germs to life appear,
No blade, or full corn in the ear.
No song of birds, no insect's hum,
No joyous shout of harvest-home;
Where the green leaf and clustering bough
Were late, the wind-harp sigheth now;
Life yields to death:—yet deep in earth,
Whence all this being had its birth,
Life's vital forces in this hour
Of seeming death, renew their power,
And soon the resurrection Spring
Her robe of green o'er all shall fling.

Man, nature-taught, *his* labor stays,
With grateful heart the past surveys,
Then, hopeful, for the coming cares
With cheerful zeal himself prepares.

How was that year, now run its round,
With overflowing plenty crowned;—
Down pressed, up-filled, each bin and bay,
With golden corn, or fragrant hay,
Till, like the prophet's gift of old,
No room was left the boon to hold.
The year which dawns, may this be blest
Like that, and Nature's bosom prest
By labor's hand her increase yield;
On meadow and on well tilled field
The springing grass and corn appear,
And "grow like sixty" ['60] through the year

And he, who draws with skillful hand
The treasures from the willing land,
May he, the tiller and the toiler,
(He is your genuine Free-Soiler,
'Twas men like him, that toil and till,
At Concord and at Bunker Hill,
When foes with foes in strife were blended,
New England homes and hearts defended,)
Be blest in basket and in store,
His garners aye be running o'er,
His oxen strong for labor still,
His meek eyed Durhams flowing fill
His brimming pails with foaming wealth,
His own cheeks mantle yet with health,
And sons and daughters, fair and able,
Like olive plants be round his table.

And she, his lot who joyful shares,
Partakes his comforts and his cares,
The farmer's wife—no prouder name
Belongs to queen or titled dame,
Safe in her trusts her husband's heart,
She gives her maidens each a part,
Her hands the distaff skillful hold,
She feareth not the snow or cold,
But riseth ere the morning light,
Her candle goes not out by night,
She gathereth stores of flax and wool,
Of self-wrought robes her drawers are full,
Her goodman standeth in the gates,
And for her sake praise on him waits—
May she, her helpmate's honest pride,

Long, graceful at his board preside,
And, thrifty, for that board prepare
The products of his toil and care,—
Her butter come with little churning,
Her joint ne'er crisp for lack of turning,
With golden cheeses all arow,
And shining pans her shelves still glow,
And thus through all the household border
Be seen the reign of law and order.
May she be blest with sense and skill
To rule and guide her household well,
Preserve her plighted *bona fide*,
And keep her husband neat and tidy.

The farmer's boy,—that sturdy fellow,
No pale-top, growing in the cellar,
No fop, unwishing higher bliss
Than measuring tape for simpering miss,—
The summer sun his face embrowned,
But ruddy left his cheek and round.
His youthful arm,—toil-nerved with strength,
Stalwart shall swing the scythe at length,
And so when old King Labor falls,
Here is your Nature's Prince of Wales.
Ere the bright sun at rosy dawn
Had kissed the dew drops from the lawn,
Fresh as a lark he left his bed,
Went forth the fragrant swath to spread,
Then found at night that sweet repose
Which useful industry best knows.
Through all New England's rock-bound coast,
Such youth her rugged hills can boast,
Trained to intelligence and toil;
'Tis these that freedom's foes shall foil,
And cause her as of yore, to be
The dwelling of the brave and free;
Still to like hands, through every age,
Transmit the glorious heritage,
And, blest of heaven, see that she stands,
Through time the glory of all lands.

The farmer's daughter—last not least,
As the best wine concludes the feast,—
In vain my pen its task essays
In fitting words to speak her praise.
If Nature e'er herself surpasses,
And "'prentice han' made not the lasses,"
If Eve came, after man's formation,
The *ne plus ultra* of creation.
Of Eve's fair daughters since the fall,
Behold the cap sheaf of them all!
No Miss MacFlimsey, caught by glare,
With forty robes, yet none to wear,
Be-ringed, bedecked in gay attire,
While wise men weep and fools admire,
Living in pleasure—truly dead,
Trusting some moustached ape to wed,—
(Perhaps my simile a breach is
Of justice to the baboon species,)—
Not such our maid;—to nature true,
Fresh as the morn, than early dew
More sweet, more pure, her fair cheek glows
With tints which quite outvie the rose,
She, graceful as the springing fawn,
Half flying trips across the lawn.
Yet beauty is but half her praise,
Not useless pass her gladsome days;
With ready hand her part she bears,
Helpful, in all the household cares,
Well fills her mind with useful store
Of gems of thought, and craves yet more.
Heaven's choicest blessings on her rest—
With visions bright her dreams be blest;—
Should the blind god with soft thoughts fill her,
The robe she dons, be a mantilla, [man-tiller,]
And then she finds in due progression,
The union that knows no secession.

But I must stay my errant pen,—
The longest sermon has Amen,—
And so your servant here presents
His most devoted compliments:
Please find enclosed herewith two dollars,
(The *quid* precedes, the *quo* it follows,
And still for aye with double zest
The thing that's paid for is possessed,)
And, that we have through all the year
Your teachings wise our path to cheer—
Your sun, by which to light our taper,
Please send *The Unabridged* the paper.

Springfield, January 8.

WHY DO ANIMALS NEED SALT?—Prof. Jas. E. Johnston, of Scotland, says: Upwards of half the saline matter of the blood (57 per cent.) consists of common salt; and as this is partly discharged every day through the skin and the kidneys, the necessity of continued supplies of it to the healthy body becomes sufficiently obvious. The bile also contains soda (one of the ingredients of salt,) as a special and indispensable constituent, and so do all the cartilages of the body Stint the supply of salt, therefore, and neither will the bile be able properly to assist digestion, nor the cartilages to be built up again as fast as they naturally waste."

It is better to place salt where stock can have free access to it, than to give it occasionally in large quantities. They will help themselves to what they need if allowed to do so at pleasure; otherwise, when they become "salt hungry," they may take more than is wholesome.

For the New England Farmer.

SQUASHES.

The 7th of 5th month, (May,) I planted in my garden ten hills of Autumnal Marrow squash seeds on two square rods of ground, which allowed fifty-four square feet to each hill. I manured with a compost of night-soil and fine chip dung, about a peck to a hill. About the time they began to run, I thinned to three or four in each hill, and through the season whenever a vine overran the fixed bounds, I cut it off. I harvested the produce the 26th of 9th month, (Sept.,) a day or two before frost killed the leaves. I found sixty-five in number, weighing 730 pounds, at the rate of twenty-nine tons per acre. A pretty good yield, I thought, and one which would pay well if a person lived near a market, but here they are worth nothing except to use in one's family, and to feed to cows. Several of them weighed 20 pounds, and two weighed 21½ pounds each.

A week or two later I planted a few hills of seeds given to me by a friend, and said to have been taken from a Hubbard squash. I planted them in my field, at a considerable distance from any other vines; manure similar to that used for the Marrow. There was a pretty good growth of vines, but the squashes were smaller than the others, only two or three weighing as many as fourteen pounds. Was this as large as usual? The color was various, generally of an ashy or pale green, a few were quite dark, and one or two had yellow stripes. Shell very hard, quality excellent, very dry and rich.

Are they probably, the real Hubbard squash?

L. VARNEY.

Bloomfield, C. W., 11 *Mo.*, 1860.

REMARKS.—The true Hubbard is not a large squash—not weighing more than six to ten pounds. Oblong, color dark green, with a rough or knobby surface.

SURPLUS OF WHEAT IN ONE STATE.—A committee appointed by the Wisconsin State Agricultural Society to canvass the grain districts have estimated the wheat crop of Wisconsin at twenty-two millions of bushels, and the home consumption at six millions, leaving a surplus for export of sixteen millions of bushels.

RURAL ARCHITECTURE.

DESIGN FOR A SUBURBAN RESIDENCE, BY GEO. E. HARNEY, LYNN, MASS.

DESIGNED AND ENGRAVED EXPRESSLY FOR THE NEW ENGLAND FARMER.

We give this month another design for a suburban or village residence. It is a fair specimen of the Italian style, so modified as to meet the wants of our country and climate. The style is characterized by the low pitch of the roof, the broad, open character of the trimmings, and the introduction of the round arch for the heads of the windows, piazzas, doors, &c.

The plan is arranged as follows: From the portico, No. 1, by means of double glazed doors, we enter the vestibule, No. 2. This opens on the left, into the dining-room, No. 4, and on the right, into the parlor, No. 3. Directly in front, a sliding glass door opens into the hall containing stairs to the chambers and cellar. The living, or dining-room has a good sized china closet, and connects, by means of a small passage on the left of the chimney-breast, with the kitchen, No. 6. This room is fourteen feet square, is conveniently placed, and well lighted, and opens directly into the staircase hall, No. 5. No. 7 is a pantry, furnished with a pump, sink, and shelves, and No. 8 is a good sized store closet, with shelves. The vestibule measures 6 feet by 7½ feet; parlor, 15 feet by 17 feet; living-room, 14 feet by 15 feet.

The second floor furnishes three large chambers, a bathing-room, and several closets.

For the interior finish of the several rooms, we would recommend something like the following: The wood-work of the vestibule and dining-room to be a wainscoting two and a half feet high, with standing finish to correspond; this, together with the wood work of the kitchen, to be oiled and varnished, showing the natural color and grain of the wood. The walls may be papered with some neat, modest pattern of panel paper, and the floor covered with painted oil carpeting of colors to correspond.

The parlor should have a lighter, more cheerful tone than the other apartments. The wood-work painted some pleasing tint or tints; the paper a small, lively figure on a light ground; and the carpet a small mosaic figure on a darker ground; all, with the window and table drapery, to harmonize in color, and as far as possible in the style of the figures.

A table or two in convenient places, that one may not be afraid to lean upon; a few wholesome chairs that one may sit in, aye, and tip back in, Yankee fashion, if he choose, without fear of finding himself all of a sudden in closer proximity to the floor than he might wish; a bookcase filled with *good* books in substantial bindings—books for use, and not for show; and finally, a few good pictures hung against the walls. This is the treatment we would suggest for the parlor.

The kitchen may be perfectly plain; the wood-work as before specified, oiled and varnished, and the walls tinted, or papered with a cheap paper, and varnished.

Each chamber may have its own peculiar style. Whole sets of chamber furniture may be procured in every variety of tint and finish, and by selecting the carpets, paper and drapery to correspond, we may have the blue chamber, the pink chamber, the drab chamber, the lilac chamber, and so on; or by selecting them with reference to some prominent figures on the paper, carpet and furniture, we may have the landscape chamber, the rose chamber, or if clusters of flowers, the bouquet, or the floral chamber, and so on through an almost infinite variety of changes, paying especial attention all the while to the harmony of the colors throughout, keeping that entire, at the expense of everything else, if need be.

Construction and Cost.—Built of wood, and covered with clapboards or sheathing, the cost of this cottage in the neighborhood of Boston would be about $1100.

RAISING CALVES. — Mr. J. A. Edwards, of Skaneateles, N. Y., gives in the *Rural New-Yorker* his process, as follows:

"Remove the calf from the cow at the age of two or three days, give it new milk for two or three weeks—four or five quarts at each meal—twice a day. At the end of that period commence giving milk skimmed after twelve hours, once a day,—in one week, omit the new milk and give only skimmed milk. As they advance in age, the milk may be allowed to stand a longer time before skimming. Instead of giving meal and turning out to pasture, as is usually practiced, I prefer keeping them in a large stable, allowing them to run, and feeding all the fine rowen or nice clover hay they will eat, with skimmed milk, or whey, for drink, until they are five months old. If the stock is good, my word for it, you will have calves worth showing."

FLAX COTTON AGAINST KING COTTON.

A private letter from Boston thus speaks of the recent invention for "flaxing out" king cotton:

"There are now in operation in this city experimental works for the manufacture of flax fibre into a material called fibrilia, or flax cotton. This can be produced it *any quantity* at between seven and eight cents per pound, and the cloth made from it is better in every respect and will take and preserve colors better than cloth made from cotton. The raw material, flax wild or cultivated, can be produced and is produced in Canada and all the Northern States in vast quantities. Colonel Lander, in one of his recent reports speaks of coming to plains covered with immense quantities of this plant growing wild. Now here is an article which even now can be had in quantities, so that its material can be produced at from two to three cents per pound less than cotton, which makes a better cloth, and which is destined to supersede cotton. Slowly but surely the parties owning the patents for the process for manufacturing this article are working it into the attention of our people.

The first mill started to manufacture cloth from this material will be the most dangerous anti-slavery society in the world.

With this I send you some of the article and some of the cloth made from it; also a pamphlet describing it. Some people are looking to this matter as offering a solution of the slavery question. Napoleon I. offered one million francs to any one who would invent machinery to manufacture flax by spinning it into cloth."—*N. Y. Post.*

MASSACHUSETTS HORTICULTURAL SOCIETY.—The Society held a meeting on Saturday, at which the President, Joseph Breck, Esq., made a brief address, which is to be printed in the regular transactions. The report of the Committee on Finance was then made and accepted, showing a balance in the treasury of $940 83, and that the property of the Society amounts to $89,540 83. An appropriation of $500 was then voted for the library during the coming year, and a further appropriation of $75 was voted to be applied by special committee to the purchase of a suitable testimonial to be presented to Mr. R. M. Copeland, as an acknowledgment of his long and faithful services as Librarian.

After considerable discussion, a vote was passed to petition the Legislature for a grant of one section of the public lands at the foot of the Common, whereon to erect an edifice for the purposes of the Society.

MOWING MACHINES. — Mrs. ELIZABETH M. SMITH, of Burlington, N. J., has invented a contrivance for making the mowing machine more safe than heretofore. It consists in a method of throwing the knives *out of gear* the moment the driver's weight is removed from his seat. When he resumes his seat, the machine is thrown *into gear again.*

For the New England Farmer.

CULTURE OF STRAWBERRIES.

GENTLEMEN:—The time has come that I must renew my subscription to the *New England Farmer*, monthly. I like the work very much; it is a cheap work, considering its value. Farming is my business, although I have quite a small farm.

Of late I have paid some attention to the raising of strawberries. I have now one-third of an acre on the ground, which I set last spring, in rows of four feet apart, and about one foot in the rows. They are Hovey's and Boston Pine. I am confident that they would have covered the ground all over, had I set them out 5½ feet instead of four, and two feet in the rows. The land is a light soil, such as corn and rye do well on, when highly manured. For some thirty years or more, it has been used for corn and rye, alternately. One year ago last fall I carted on mud and clay so as to cover it 1½ inches, and during the thaws in the winter, I knocked it to pieces, and spread it evenly over the ground. The succeeding spring I plowed it and harrowed in 30 bushels of unleached ashes. The last part of April, as soon as the ground was suitable to work, I set out my plants; nearly all lived, but it was a long time before they made much headway, for the reason that the cut worms kept eating off the plants as fast as they grew. They finally came on and grew finely. I sowed flat turnip seed between the rows, and had 40 bushels of turnips. They did not interfere with the strawberry vines, as I wanted a vacancy between the rows. There were a very few strawberries. In the fall, at the last hoeing, I sowed on two casks of air slacked lime and four bushels of coarse salt, and lastly covered them up with salt hay. They are now free from weeds. It is my intention to thin and hoe them next spring.

Will it pay to do so? I understand that many do not hoe them at all in the spring.

I now send you a dollar for the next year's monthly. It paid well last year, and I believe it will this; I wish all the farmers in the good old town of Pembroke would take the *New England Farmer*. I know it would be a dollar well spent.

Pembroke, Dec., 1860. OTIS P. JOSSELYN.

REMARKS.—If you cultivate the strawberry, there can be no doubt but it will be profitable to cultivate it well. We do not believe in permitting a struggle for the mastery between weeds and the plants that we have set. Whether you will find your strawberry crop profitable or not will depend considerably upon the skill you possess as a market man.

THE BEE ANNOYANCE.—Since the extensive importation and production of bees in California, they have become, in many respects, a source of great annoyance. The housekeeper, in cooking, the grocer and fruit-dealer, all have them swarming by hundreds, and perhaps thousands, around their premises, rivaling the house-fly in troublesome propensities. A Sacramento coal dealer recently obtained a quantity of coal which had a cask of molasses broken over it. When the coal was brought into the yard, the bees collected in such quantities that he spent half a day with a hose in washing off the coal in order to remove the temptation. They have partially destroyed the produce of several vineyards near Sacramento; when the grapes were gathered, it was found that the little thieves had extracted the juice. As a matter of course a large number of bees are necessarily destroyed while poaching on the forbidden ground. Is there no remedy for these difficulties? asks the Sacramento *News*. Can bees be kept from annoying everybody but their owners, and at the same time preserve their own lives, or must the evil complained of continue to increase in magnitude?

STATE BOARD OF AGRICULTURE.

A meeting of the State Board of Agriculture was held at its Rooms in the State House, Tuesday, 8th inst. There was a full attendance of the members. His Excellency, Gov. ANDREW, presided, and on taking the chair made a few appropriate remarks, manifesting a lively interest in the cause of agriculture, and pledging himself to do whatever was in his power to make this branch of the Government efficient. He expressed a lively interest in the objects of the Board, and said that he inherited a love of the occupation, as one presenting the leading importance in our industrial pursuits. The Lieut. Gov., J. Z. Goodrich, was also present, and, on being called upon by the Governor to preside while he was absent for a few moments, expressed his interest in the noble art, and his desire to co-operate with the Board in promoting the interests of our agricultural industry.

After some general discussion in relation to the records of the last meeting pertaining to the Hampden Society, a report was made by Mr. DAVIS, of Plymouth, in relation to this society, which was laid upon the table. The discussions were in regard to the change of time made by the Hampden Society, such change being contrary to law.

In the afternoon, Dr. J. BARTLETT, of Chelmsford, reported upon the Exhibition of the Middlesex North Society, stating that the exhibition was a successful one, and that this Society will soon be one of the strongest in the State.

Mr. BUSHNELL, of Sheffield, reported upon the Exhibition of the Plymouth County Society. No cattle were exhibited. Mr. B. also read a report upon the Exhibition of the Housatonic Society.

Mr. STOCKBRIDGE, of Hadley, made a report upon the Exhibition of the Middlesex Society.

Mr. DAVIS, of Plymouth, made a report in relation to the laws enabling Societies to protect themselves on the days of the Exhibition. The committee advised the Board to recommend to the Legislature to pass a law in substance like the following:

"Whoever, during the time of holding any ex-

hibition of an agricultural society, or Farmers' Club, or of any public Market Fair held at stated intervals upon regular Market Days, and within one-half mile of the place of holding the same, without the permission of the authorities having charge of the same, who shall designate the place of sale or exhibition, hawks or peddles goods, wares, or merchandize, or establishes any tent or booth for vending provisions or refreshments, or practices or engages in gaming or horse-racing, or exhibits, or offers to exhibit shows or plays, shall forfeit for each offence a sum not exceeding twenty dollars, provided that a person having his regular and usual place of business within such limits, is not hereby required to suspend his business." A committee was appointed to obtain the passage of a law securing these points.

Mr. GRENNELL, of Greenfield, made a report upon the Exhibition at Martha's Vineyard, which gave a somewhat detailed account of the geographical and geological character of the island, with a statement of the increase or decrease of the products of the soil since 1855.

On motion, it was voted that the Secretary of the Board be invited to make motions and discuss subjects as he may choose from time to time.

WEDNESDAY, SECOND DAY.

Board met at 10 o'clock. Col. WILDER in the Chair. Mr. FAY offered the following resolutions:

Voted, That the Secretary of the Board be directed to call the attention of the Mayor and Aldermen of the cities, and Selectmen of the towns of this Commonwealth, on or before the 20th of April, annually, to the law for the protection of sheep against dogs, and urge its enforcements.

That the Secretary be also directed to ascertain, on the first of October, annually, from the cities and towns of the Commonwealth, the number of dogs licensed, and the amount received therefor.

Professor CLARK, of Amherst, read a long and highly interesting report upon HORSES, which, upon some points, elicited long and earnest discussion.

THURSDAY, THIRD DAY.

Dr. BARTLETT, of Chelmsford, reported upon the destruction of woodlands and other property by fires, suggesting that the Board recommend to the legislature to provide certain regulations that shall be observed by every person before setting fire to brush or wood lands.

Mr. R. S. FAY, of Lynn, from the committee on *Agricultural Education*, reported what the committee had done in relation to an *Agricultural Manual* for the use of common schools. An interesting discussion followed, in the midst of which, Mr. STOCKBRIDGE, of Hadley, introduced the following resolution.

"*Resolved*, That in the opinion of this Board, the time has arrived for the inauguration of measures tending to the establishment of an Agricultural School of high grade, under the patronage of the Commonwealth."

This resolution led to a long discussion, calling out decided opinions both in favor and against such a measure, and the following was adopted in its stead:

Voted, That a committee of three be appointed to propose some plan by which an agricultural school may be established in this Commonwealth.

Mr. DAVIS, of Plymouth, reported upon the resolutions offered by Mr. BROWN, of Concord, at the last meeting of the Board in relation to the flowage of lands.

Mr. FAY observed that this was a very able report on a most important subject—a subject which for years he had considered. He said that circumstances had much changed since the passage of the various laws authorizing and protecting mill privileges, because land had all the time been growing more valuable, and water power less important, from the improvements in the use of steam. He also expressed the belief that many of the most flourishing and improved water privileges were not worth as much as the land they destroyed by flowage. That in many instances it would be desirable to have the water privilege appraised, purchased, and the dam removed by the land owners above it, making thereby an operation profitable to themselves, the owners of the water-power and the community, but that while there was a law for taking land for water privileges, there was none for relieving the land in any way from the injury created.

We have already occupied so much space that we cannot give this report at present, but will do so soon. It is a subject which interests the farmer in every portion of New England. The report was referred back to the same committee to recommend to the Legislature a change in the laws of the Commonwealth in regard to the flowage of lands.

Dr. LORING, of Salem, reported upon the Worcester North Society.

Mr. FAY called up the subject of the manual for common schools, which had been laid upon the table for the purpose of introducing another matter, when an animated discussion followed, which resulted in the adoption of the following vote:

Voted, To refer the whole subject of the *Manual of Agriculture* back to the original committee, they to present the manuscript to the Board for approval, whenever it is completed.

Messrs. BUSHNELL, SEWALL and FELTON were appointed a committee to procure a change in the laws in relation to the weighing of crops.

The Board then adjourned to meet on the 22d inst., then to examine the manuscripts, and take into consideration the expediency of publishing an Agricultural Manual for Schools.

LEGISLATIVE AGRICULTURAL SOCIETY.

The second meeting of the Legislative Agricultural Society was held at the State House on Monday evening, and was particularly well attended, all present seeming to take much interest in the discussion.

Col. FAULKNER, of Acton, was appointed Chairman of the evening, and Dr. F. W. MASON, of Dartmouth, was chosen Secretary for the series of meetings.

On taking the chair, Col. Faulkner announced the subject for discussion to be, "The winter management of Farm Stock," and said that beyond returning thanks for the honor conferred on him, he would not occupy the time which he hoped would be devoted to a discussion of the question by practical men.

Mr. S. HOWARD, of Boston, said that the usual food of cattle in the country in winter was hay, with more or less roots, but in cities, or near them, where milk in quantity was the prime object to be gained, the food was more varied. In alluding to the nutriment derived from the different kinds of food for cattle, Mr. Howard read a table of Boussingault in reference to the muscle-forming substances. Taking common hay at 10, as the standard, clover hay would stand 8, rowen 8, green clover in flower 3, straw of different grains 52 to 55, potatoes 28, carrots 35, turnips 61, Indian corn 6, oats 5, oil cake, peas and vetches 2.

Thus the equivalent of a pound of common hay would be about 3 lbs. of potatoes, 3½ lbs. of carrots, 6 lbs. of turnips and 5 or 6 lbs. of straw. The equivalent of a pound of Indian corn 4⅔ lbs. of potatoes, nearly 6 lbs. of carrots, and about 10 lbs. of turnips.

There was much difference of opinion as to the value of root crops as feed, but he thought decidedly that every farmer should have them always within his reach in good quantities. It is objected by some, said he, that root crops contain too much water, but he could not see where this held good, as grass, and other feed would be liable to the same objection. He had heard some farmers with whom the quantity and not the quality of milk was the prime object, advocate feeding cows on slops, but this he could not speak on, as he had not had experience in it.

The subject of cooking food for cattle had never been fully settled, many condemning the practice as too expensive, even if there was any advantage in the quantity of milk or the growth. In general it has been found in the case of cattle kept for growth or fatting that it does not pay In England and Scotland, where numerous experiments have been tried, and where the expense of cooking is much less than here, coal being bought for about 70 cents per ton, none of them paid, and, of course, if it would not pay there it would not here.

In the matter of cooking food for milch cows in winter, there is a difference of opinion now in Scotland, but it is generally thought there that it pays, as they produce more milk. He said he scarcely knew of one farmer in Massachusetts who put up steaming apparatus ten years ago that continued it now. There have been very many and valuable improvements made, and these, he thought, might be used to advantage in some localities. Mr. Howard said that Mr. Birney, near Springfield, has carried on the process of steaming the food for his cows for two winters, and says he is satisfied that it pays, and Mr. Peters, of Southboro', also speaks well of it. The Scotch dairymen mix up all the food for their cattle, but many people there entertain extravagant ideas in relation to the value of straw for food, and Mr. Mechi, at a meeting of the Central Club, had stated that he could get 16 or 18 lbs. of fat from every 100 lbs. of straw, but when the Club had a chemical analysis made it was found that only 1 to 1½ lbs. could be obtained.

In regard to the relative value of vegetables, Mr. Howard said that it was admitted that potatoes contained the most nutriment, and next came the carrot. This, he said, had medical properties which were not fully known, but there was no doubt that they assisted the digestive organs, as also in forming the mucous coat of the stomach and bowels. Livery stable keepers had told him that they found it profitable to pay as high as $14 per ton for them, and that half a peck per day, given to a horse, would pay better than the same quantity of any other food; but if horses had been driven hard, the quantity of carrots should be lessened. Many farmers, said he, object to raise carrots, thinking them a small crop, but he referred to a statement of one of the members of the West Springfield Farmers' Club, who had raised carrots for 6 cents per bushel, mangel wurtzel or sugar beet for 5 cents, and turnips for 4 cents.

Mr. Howard said that cotton seed cake had recently been introduced in a new form with much success; formerly it was found that the outer covering of the seed destroyed cattle, but a process has been discovered by which this covering has been removed, and now it is thought as good as linseed oil cake. [Mr. Howard presented a sample of this cake for inspection.]

Dr. COLE, of Cheshire, thought that horses with

hay always before them did not do so well as those to which the quantity was limited. He fed his horses with straw and dry oats, and found them better in every way for it. The trade of a farmer he considered harder to learn than any other, but he thought that, without the aid of science, a man might make an excellent farmer from observation alone.

He spoke of farms in the Hoosac Valley, some of which were formed on lime rock, while others were entirely without it, and where this lime did not exist, it was found that the cattle would eat all the bones they could find, and in lieu of this, the farmers on these lands were in the habit of putting lime in their food. Dr. Cole considered the shelter of cattle in the winter as a very important matter, as also their water. Farmers who had pure springs running through their cattle yards, and who had not to drive their animals a mile or two in the frost and cold daily to water them, other things being equal, would always find them come out better in the spring; cattle subjected to cold winds always requiring more food than those better sheltered. The speaker referred also to the ventilation of barns as a matter of great importance. He said that a neighbor of his owned a large quantity of land on which grew what was termed fresh meadow hay, and this he mixed with a portion of upland hay, and found an excellent feed for young cattle.

Mr. FLINT, Secretary of the Board of Agriculture, was the next speaker. He agreed with Dr. Cole, that one of the most important points in keeping stock in the winter is in sheltering it. Around Boston the barns were too well built, if that could be said, but they have not such good ventilation as they should have, while, throughout other parts of the State, this was the reverse. In North Brookfield, said the speaker, on those farms where the ravages of the pleuro-pneumonia were the greatest, the barns were so wretchedly built that you could poke your fist through almost any part. There was no question in his mind that milk was lost by driving cows out to water on a cold day, and where it was practicable he should prefer to give it them in the barn, with the chill taken off. Although exercise was of decided benefit to cattle he should only let them have it during the warm days of winter.

The fresh meadow hay spoken of by Dr. Cole was of the same character as much in Essex and Middlesex counties, and he thought that swale grasses mixed with hay was sometimes good feed, but he considered oat straw more valuable. For feeding to cows in milk, and sheep, he thought clover well made was the best food. The farmers in Scotland, said he, cut their oat straw before it is dead ripe, and one fault we commit is in letting our grains grow too ripe, and thus lose the nutriment in the straw. Oats should be cut when the straw begins to be yellow just below the grain, and then the grain is better and the feed is excellent. For feeding milch cows, grasses should be cut just before coming into blossom, and for store cattle when in full flower; the object in curing grasses being to preserve the most of the juicy and nutritious qualities.

Mr. WASHBURN, of Worcester, said he was present as a mechanic, but he wished to call the attention of the Society to a fact in relation to a horse belonging to a baker in Worcester, which was noted for its endurance, appearance and speed, and which was fed entirely on brown bread, and said that during his travels in Switzerland he found they there fed their horses on the same substance. His baker told him that the expense of feeding was much less than on ordinary feed, and he wished at some future meeting to hear the subject of the cooking of food for horses discussed.

Mr. WITHERELL, of Boston, spoke of an experiment made by a farmer in Sunderland, in feeding hogs on cooked and uncooked food, and he found the advantage, if any, to be in favor of the uncooked. He gave lengthy statistics of the relative nutritive and flesh-forming qualities of the different kinds of feed from experiments made by Mr. Fletcher, an English chemist.

Mr. ANDREWS, of Roxbury, said he was in the habit of feeding many cattle for milk, and last year he fed not over two quarts of cotton seed meal to each cow per day, with the best effects, and thought it was the best feed he had found yet, as he got better milk and more of it. In feeding horses he thought too much hay was given. His experience in cooking food had been confined to hogs, and the food so cooked was meal, but he found that his pork cost him 12½ cts. per pound, when he could have bought for 8 or 9 cts. He had been feeding half a bushel of mangolds per cow since the middle of December, and had found no ill effects from it. He gave the cotton seed meal in cut feed, with poor hay, corn stalks, &c.

Mr. WARD, of Fairhaven, said it had been stated that cooking food had not been found profitable, but he questioned whether the manner of cooking it did not make some difference. He spoke of the brown bread experiment, and thought something might be learned from that.

Mr. FISKE, of Shelburne, thought the experiments in England and Scotland would not apply here, where labor could not be had for twenty cents per day; it was as much as farmers could do to cook for themselves, and we were glad to find English hay, carrots, turnips, &c., in the ground for our cattle. We have little knowledge, said he, of chemistry, but we know that there is water

in potatoes, and that there is little fat in straw. We find the cultivation of carrots hard work for the back, and we would rather dig up a little patch after the spring work is done, and sow a few oats, cutting them just as they were headed, and thus procure some good feed at a little expense. The speaker thought carrots were good as a medicine, and for nothing else. He spoke of the importance of keeping calves well the first year, and as a proof of the advantage of doing so, said that one neighbor of his had a pair of steers weighing from 900 to 1100 lbs. each, while another killed a heifer calf which weighed when dressed, 619 lbs. He also called attention to a five or six years old steer owned by Mr. Sanderson, of Bernardston, which now weighs 3500 lbs. He thought we were far ahead of England in consequence of our excellent pastures. In his section of the State, sheep raising was paying well, and there were 2000 sheep in his town that returned $6 per head, in lambs alone, while the manure was of great value, but of this he proposed to speak at a future meeting.

Col. FAULKNER spoke of an experiment being made by a neighbor of his who had been feeding his cows on English hay, and who is now feeding on meadow hay, steaming it, and warming his barn from the apparatus; and he said he was saving $8 per ton on hay. The speaker said in reference to the effect of cold weather on cattle, that during the cold days we had about the last of October he kept some cows out three days and nights, and they shrunk one quarter in milk, and it took them four days of warm weather to come back to the original quantity. He objected to a barn heated artificially, and thought the steam from manure was also injurious to cattle.

It having been announced that the subject for discussion, next Monday evening, would be—"*What kind of farming is the most profitable in the different sections of the State?*" and that Hon. JOHN BROOKS, of Princeton, would preside, the meeting adjourned.

For the New England Farmer.

SOILING CATTLE.

MR. EDITOR:—In a late editorial, you kindly invited young farmers to contribute to the columns of your valuable paper. We, youthful farmers, are not expected to give the results of much experience, but we may advance some ideas for the older farmers to pronounce judgment upon. It is said, by some, that every generation grows wiser. If that is really the case, farming ought to improve much faster than it has in years past. But whether it is so or not, every one will admit that the mode of farming has been improved some, and that there is room for still greater improvements. Now the question is, how can our farms be improved the most, with the least expense, and in the shortest possible time? I think the only way to do this, is by soiling our cattle. There is hardly a farmer in this part of the State who could not, by proper management, keep more than double the stock which he now keeps. Too much land is wasted every year for pasturing. Even on this little farm of but 50 acres, where two years ago 20 acres of that were used for pasturing, and then but six cows were kept, more than twice that number are now kept. And we have a fair prospect of making it much larger within the next two years. By keeping cattle in the barn during the summer, not only will half the number of acres keep the same number of cattle, but the farm is constantly growing richer, as much more manure can be made in the summer than in winter. And the farmer can apply it to much better advantage than the cattle can. I see no reason for farmers to be discouraged. Let Mr. Pinkham say what he pleases, for I believe that farmers are yet to become the richest portion of the community instead of the poorest.

Westboro', Jan. 1, 1861. JOB.

REPORT ON THE CATTLE DISEASE.

As all our readers feel greatly interested in this matter, we have copied an abstract of the report of the Commissioners on the Cattle Disease, which was submitted to the Legislature on Thursday, Jan. 10. The people of our Commonwealth, especially, have reason for thankfulness that under the vigorous and prompt action of the authorities, a disease that threatened to spread throughout the country and destroy millions of dollars worth of the most important portion of our farm stock, has been, so far as we can now see, subdued and exterminated, and that at an expense comparatively trifling, when we consider the importance of the interest at stake.

The contagious character of the disease is satisfactorily established, and the connection of every case with the original infection clearly traced. The recommendation of the Commissioners that Congress be requested to consider the propriety of a quarantine law in relation to the admission of foreign cattle is, therefore, highly pertinent and important. We hope the report may be published in full and generally distributed among our citizens, as it is one of great interest to the community. The following is as full an abstract as we can find room for:—

The Commissioners give a lengthy and detailed history of the progress of the disease and the legislation in relation to it, and then proceed to to say that they do not deem it within their province to speak at length of the pathology of the disease, with which they have been called to contend. The appointment of a medical Board of Examiners render such a service quite unnecessary.

"Certain clear and practical conclusions," say the Commissioners, "to which we have arrived in view of the facts under our observation, we feel it incumbent upon us explicitly to state:

1. That the disease is strictly contagious, no case having occurred where it was not directly and indisputably traceable to contact with some animal known to be diseased.

2. That the severity or virulence of the disease is in proportion to the closeness of contact; that where the animals are confined in barns they take the disease from each other in the most aggravated form.

3. That cleanliness, ventilation and the use of disinfectants are important as means of preventing the spread of the disease among a herd in which it exists, and of modifying its character.

4. As the disease always in the end produces ulceration of the lungs, it is hopelessly incurable."

In proof of the contagious character of the disease, the Commissioners present a diagram, which is intended to prove the connection of every case with the original infection.

The Commissioners, after defending the policy of destruction, as being, under the circumstances, absolutely necessary, proceed to give some statistics of their operations.

From these it appears, that of the animals pronounced sound, and killed, under the act of April 4, there were 197 cows, 103 heifers, 89 oxen, 78 steers, 164 yearlings and calves, and 42 animals not described: total 673. Animals, pronounced diseased and killed under the act of April 5, 188.

Animals killed, paid for under act of June 12, cows, 10; heifers, 7; oxen, 2; steers, 2; yearlings and calves, 5; animals not described, 5; total 31. Total of animals to be paid for, 704. Total of animals killed by the Commissioners 892; in addition to which 5 have been killed by the medical examiners.

The Commissioners are satisfied that the law of April 4, 1860, under which by far the greater part of the operations of this Board were conducted, was just and liberal in its provisions; but they observe with regret that some cases of great hardship have resulted from its execution. Such cases they commend to the consideration of the Legislature.

The Commissioners then speak at some length of false reports of the existence of pleuro-pneumonia elsewhere, and of the attention which its existence in Massachusetts has excited in other States. In this connection they quote liberally from reports and other documents, printed in various States. They aver that their opinion of the contagious character of the disease is sustained by practical and scientific men everywhere. They advise, upon the appearance of the disease, immediate separation of the sick animals from the remainder of the herd, and an isolation of all that may have been exposed to the infection. The vastness of the interest at stake may make it the part of wisdom to secure most certainly, in all cases, the rigid observance of this practice by legislative enactment, as is done in other States.

In conclusion, the Commissioners say: "In view of the well established contagiousness of Pleuro-Pneumonia, the Commissioners strongly recommend that measures be taken to call the attention of Congress to the propriety of enacting such quarantine regulations, in relation to the admission of foreign cattle, as shall effectually guard the country against the danger of another importation of this contagious and fatal disease. That there is no safety in bringing neat stock from any part of Europe, is very obvious; and since it is not unlikely that the importation of such stock will continue, the regulations proposed seem in the highest degree important. The Commissioners trust the Legislature will take such action in the premises as the exigency demands." They then quote, in support of their opinions, from an essay on the subject from Prof. Simonds, the distinguished President of the London Veterinary College, who is regarded by them as the highest European authority.

The report is signed by Paoli Lathrop, Amasa Walker, Cyrus Knox, George B. Loring and Elbridge G. Morton.

LADIES' DEPARTMENT.

DOMESTIC RECEIPTS.

BEEF.—A very economical, and most savory and delicious dish can be made with two or three pounds of chuck steak, (a cheap part of beef.) which infinitely surpasses the tasteless, insipid, common eating-house stuff called "beef alamode." Cut the steak into pieces about two inches square, put them into a saucepan with a large breakfast cup of cold water; put it on the fire; as soon as it boils up, stand it on the hob to simmer for two hours until perfectly tender. While simmering, tie up, with a bit of thread or cotton, a bunch of herbs, composed of knotted marjoram, winter savory, and a little thyme; take it out just before the dish is served. Of course the stew must be occasionally shaken, as all others are; remember, however, the fat must not be skimmed off; the more fat there is, the better is the stew. This dish is of Italian origin, and in that country is eaten with plain boiled maccaroni and Parmesan cheese, or with salad; and with either it is a "dainty dish to set before a king." Any girl from a charity school could cook it, while an alderman of Portsoken Ward, and a three stone man, or a cripple from the workhouse, would equally enjoy it, and wish he could eat more.

OYSTER LOAVES.—Take some small French rolls, make a round hole in the top, and scrape out all the crumbs. Then put your oysters into a pan, with their liquor, and the crumbs that come out of the rolls; add a lump of butter, and stew them together five or six minutes; then put in a spoonful of good cream. Fill your rolls with the oysters, &c., lay the piece of crust carefully on again, and set the rolls in the oven to crisp. These loaves may be used at an entertainment.

SCALLOPED OYSTERS.—Wash your oysters well in their own liquor, then put some of them into scallop shells or a deep dish, strew over them a few bread crumbs, with some seasoning, such as you prefer, and spread some butter over them; then add another layer of oysters; then of bread crumbs, &c., and when the dish or shells are full enough, spread some butter over the top, and put them into an oven to brown.

PICKLED OYSTERS.—Boil the oysters in their own liquor until they look plump, then take them out and strain the liquor; add to it wine, vinegar and pepper to your taste, and pour it over the oysters.